EFFICIENCY IN HOME-MAKING AND FIRST-AID-TO-GOOD-COOKING

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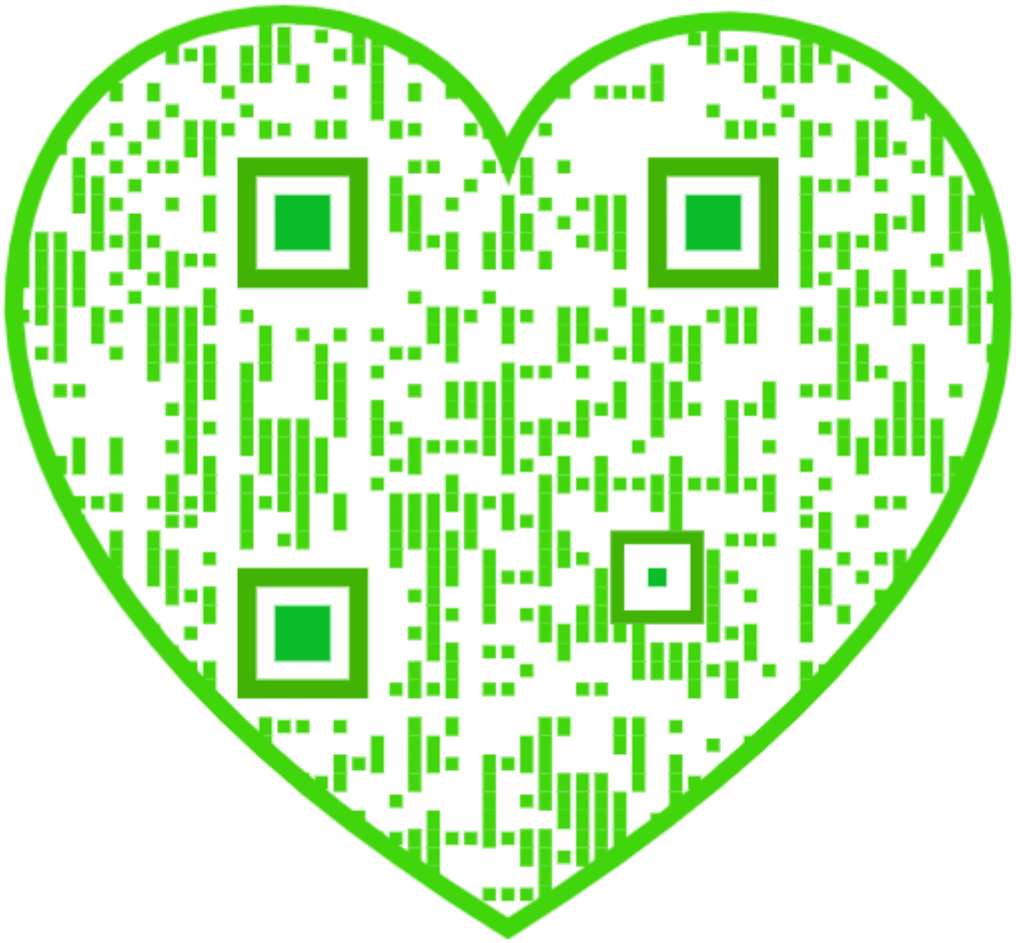

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EFFICIENCY

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HOME-MAKING

AND

FIRST-AID

TO

GOOD COOKING

BY

GEORGIA ROBERTSON

Author of

Common Sense Recipes for Every-day Use
The Money Value of Good Health
Health and Good Cooking in the Home

ROBERTSON, PUBLISHER
WASHINGTON, D. C.
THE KENESAW

TX145
R65

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WASHINGTON, D. C.

DEC -7 1915

BAKER PRINTING CO.
NEWARK, N. J.

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To those who would aid in the better upbuilding of our nation, mentally, morally and spiritually, by a more perfect physical development, this little book is dedicated.

Selecting the Home for Health and Efficiency

NAME THREE IMPORTANT POINTS IN SELECTING A HOME.

First. Healthful location, far from marshy ground, stagnant water, polluted stream, or noisy surroundings.

Second. Dry, airy cellar; never damp, moldy, ill smelling, or water standing in it.

Third. Light rooms, with sunshine at least part of the day.

Why will a damp cellar affect the rest of the house?

The air and dampness pass through minute pores and crevices, and enter the rooms above.

How can you prove this? Close all windows and doors, and burn some ground coffee in the cellar and you will notice the odor in the rooms above. The floor of the cellar and the sides as far up as the level of the ground outside should be concreted to keep the dampness and ground air out. In a city there are many gas and sewer pipes underground and gases escaping make their way through the earth into the house.

What harm will it do to have impure, damp air in the house? Impure air and dampness lower vitality and resisting power, making one more susceptible to disease.

Are dark cellar and basement closets, and all sinks, wash-stands, and tubs with enclosed plumbing objectionable? Very, for dark and damp places favor germ growth.

Will a handsome exterior compensate for living in rooms not penetrated by sunshine? No; sunless rooms mean gradual undermining of vitality.

What other conditions may make a house or apartment undesirable? If it is exposed to fierce, bleak winds and cannot be heated sufficiently, or in a hot climate not

sufficiently large air chamber above, and sunshine beating directly on many large windows all day.

What kind of a house makes for efficiency living? One, the proper care or oversight of which, leaves time for the best development of the members of the family. One that is so large or so furnished, that it is an undue tax upon either the income, the time, health or nerves of its occupants is not worth while.

THE WATER SUPPLY.

Why is there so much danger from impure water? Water passes out of the stomach quickly, so its secretions cannot act on it as thoroughly as on food, destroying the germs.

Can one retain health and not drink plenty of water? No; for the body is two-thirds water by weight, and in addition must have plenty to wash out impurities and waste material.

How much water a day is required besides that in the food? Three pints.

If water has no odor, is clear and sparkling, is that a test of its purity? No; it may be swarming with bacteria.

If obliged to use impure water how should it be purified? Filter through a good, slow filter, not one that runs a full stream from the spigot. Then boil, cool, and place in the ice box in covered fruit jars near the ice. Ice should not be put in drinking water but next it.

How can the flat taste of boiled water be overcome? Pour back and forth from one jar to another in a clean place free from dust, or partly fill can, put on cover and shake thoroughly.

How should the filter be cared for. It must be washed every day, scrubbing the porcelain tubes with a brush used for nothing else. They should be baked every few days, to kill any microbes or germs.

Is well water better than good city water? Seldom; for well water is very liable to contamination, from sur-

face drainage. Stables, outhouses, or any kind of pollution, though some distance away may make the well water unfit for use.

Why is the modern driven well preferable to the old style dug wells? No surface water can get into it, which is very important. If the small driven pipe is not replaced by a large iron one it becomes self cleansing, and the water must be fresh, as there is no space for it to stand. Such a well, of course, does not need cleaning, or ventilating.

What precaution must be taken with the old style well or the driven well if it has a large tank pipe? It must be covered in such a way at the top that no small animals can fall into it, that the water cannot trickle back, carrying filth that may have fallen on, or been tracked across the covering, and it must have a ventilating shaft. It must be cleaned regularly, and the water analyzed.

Are the old style wells with a rope to be drawn up by hand objectionable? Very, indeed; the perspiration, dirt, microbes and germs from the hands are transferred to the rope, to be washed down from it into the next bucket of water. A well should be so placed that water from a cemetery, slaughter house, stables and closets will not drain towards it.

Are rain water and snow pure? Not that which first falls, for they have washed down all the dust and germs in the air. If used for drinking, do not let them run into the cistern; but rinse the roof off first with that.

What special care do cisterns need? To be properly ventilated and cleaned regularly. Do not have an ill-smelling cistern; it is insanitary.

HEATING THE HOUSE.

Is it economy to buy a small heater that has to be forced to heat the house? No; a larger one will last longer and give more satisfactory service.

What advantage has hot water heating over steam? The heat is not so dry; it gives a more even temperature

to the house, as with steam the water has to reach boiling before the heat comes up, and as soon as it falls below boiling, it ceases to carry heat above.

Can very large buildings be heated by hot water? Not satisfactorily.

Are steam and hot water heat preferable to hot air? Yes; there is dust from the hot air furnace in the rooms above, and gas is liable to enter through the heating flues. These flues must be kept free of dust, and intake of fresh air must be from a point where the air is pure, not under a veranda, or from the cellar or drawn from any room in the house.

How can an inexpensive heater be provided for a six-room house? There is now a small hot air furnace costing less than $100.00, which will heat six rooms comfortably, but one must see that fresh air is constantly supplied in the house, because the air for the heater is drawn from the living rooms, but no air from the cellar passes into the heating flues. It is not so hygienic as a furnace that receives air from outdoors, but it costs less, is better than heating with stoves, probably no more expensive, and much easier to take care of, as the coal and ashes are all in the cellar.

Is it desirable to defer starting the furnace until very late in the fall? No; for the house becomes chilly and damp, and is uncomfortable as well as liable to cause colds and rheumatism.

How can too much heat be avoided? By only shaking down the furnace enough to prevent the fire going out, and after putting on furnace coal, put a layer of fine pea coal over that.

Can a fire be kept very low this way? It can for days at a time, so there will be scarcely any heat; just enough to prevent chill and dampness.

Where steam heat or a hot air furnace is used what must be done to prevent excessive dryness in the atmosphere? A dish of water must be kept on the radiator, or a pail of water below the register grating, unless the furnace has a reservoir for water.

What harm will an excessively dry atmosphere do? It will dry out the furniture, and injure it, and also affect the skin, hair, and lining of the nose and throat of the occupants of the house. It will predispose them to catarrhal troubles.

Can one judge of the proper temperature of a room by the feeling? No; the only safe way is to use a thermometer.

What is considered the best temperature? 68°.

What should be done to the heater when warm weather is assured? It should be thoroughly cleaned and put in readiness for fall.

Why is it important to remove the soot from the smoke stack? It readily absorbes dampness, and the pipe will rust until it is only a thin sheet, and is liable to cause a disastrous fire, when used. The soot also gives off an unpleasant odor when damp. Dust should be cleaned from all flues in a hot air furnace.

LIGHTING THE HOME.

Why is electric light preferable to any other kind? It does not use any of the oxygen in the air; every other kind does.

What other important advantage has it? It does not give off any gases in burning as all other lights do.

Is indirect lighting better than the direct? It is; it diffuses a soft light all over the room which is better for the eyes than a glaring light. The contrast between dark shadows and a glare of light in the room is bad for the eyes. Of course, there must be plenty of light to read or sew by, for it is a strain on the eyes and the nervous system also, to work in a poor light.

Are Welsbach lights more economical? Yes; they increase the amount of light very much, so one burner will do the work of two or three.

Where should a drop gas light be turned out? At the fixture above, for if the gas remains confined in the

tubing it will injure it, and is liable also to leak when not burning.

When the gas flame is uneven, what should be done? Clean out the gas tip. Turn the light out and run a thin card back and forth through the tip.

Should a kerosene lamp be turned down? No; it will use as much oil, and also give off a poisonous offensive odor, from a gas which will be formed by the low heat of the reduced flame.

How should the burners be treated? They should be boiled occasionally in soda and water, and dried thoroughly.

How often should oil lamps be filled? Every time they are used, for though a little space should always be left when filling them, if the oil gets too low, an explosive gas is liable to form in the space above the oil.

Why should a little space be left in filling them? So the oil will have space to expand from the heat.

THE WALL PAPER.

Which two colors are considered most restful for the eyes and nerves? Nature's two colors; blue and green, in soft tones.

For a room with only a northern exposure, and poor light, what color would give most cheerfulness to the room? Light yellow, the sunshine color.

Is there any choice in the designs of wall paper? If paper has a figure that stands out with such prominence you are conscious of it when in the room; or if it has a design one is constantly figuring over, it is very disturbing when ill. Such papers are never as restful as less obtrusive ones. In these days of intense living, the more quieting and restful one's surroundings, the better for health.

Are striped papers desirable? Yes; they increase the apparent height of the ceiling. Striped paper in soft gray, pink, and white are dainty for bed-rooms.

SELECTING THE FURNITURE.

What kind of furniture is most desirable? That best suited to the needs and income of the family.

Are hangings and upholstery of light satin brocade desirable? Only for drawing-rooms, used for special occasions; not in a room for family use.

Why not? Sunlight is Nature's free disinfectant, and must not be shut out to protect the furnishings. The health of the family is of more importance. Happily the darkened parlor with its musty odor belongs to the past.

What kind of hangings and upholstery should be selected? Those that will stand the light; can be kept clean easily, and will wear well.

Are elaborate carvings, deep tuftings, and fringes, satisfactory? No; they are very difficult to keep free from dust.

Is heavy furniture desirable? No; it is difficult to move in cleaning.

Are ornate decorations, and faciful shapes in good taste? No; well-made furniture with graceful lines, but plain in design, is always to be preferred.

Is there danger of overcrowding a room with furniture and ornaments? It is a common mistake. If many homes had much of the furniture and many of the ornaments removed, they would be much more attractive, and hygienic. Try this in a room and note the improvement. Homes were not intended for an annex to a furniture store, or for museums, and old curiosity shops; an attic might be set aside for such use, and be very attractive.

Is mahogany or oak furniture preferable? Solid mahogany in simple designs is always in good taste if one can afford it; cheap imitations are not desirable. Fumed oak in Mission style, or weathered oak, makes a charming living room, if everything is in harmony with it. It is also suitable for a den or dining room.

Should one style of furniture be used throughout the room? The effect is very much better. Try not to mix

mahogany and oak; or fumed and golden oak; or white enameled furniture.

Is white enameled furniture satisfactory? It makes a lovely bed-room, if other things are in harmony, but for hard usage, it chips off, and needs refinishing every few years, but is very dainty and attractive.

If two persons have to occupy the same room, is it better to have two single beds? It is very much better, for several reasons. Two persons may not require the same amount of covers, besides it is much more hygienic. Colds and contagious diseases may be taken in this way.

Why will a person sleep better alone? He is undisturbed by movements of another and does not fear to move himself. The thought that one must lie still is very disquieting.

Should a well person occupy the same bed with one who is ill; if not with a contagious disease? No; it is bad for both of them. Neither should a child sleep with an elderly person.

Is there objection to children sleeping together? It ought to be avoided. Never, under any circumstances should a little brother of seven or nine occupy the same bed with his little sister. Some mothers are criminally careless in this matter.

Must a baby sleep alone? It must. If it cannot have its own little crib a laundry basket will answer the purpose, or even a box, properly padded around the sides and raised from the floor.

RUGS OR CARPETS.

Are carpets in crude bright colors desirable? No; soft toned ones are in much better taste.

Are rugs to be preferred to carpets? Yes; they are much more hygienic. The uncovered spaces can be wiped free of dust every day in a few minutes, and the rugs can be taken out often to air and clean.

In a bed-room is one large rug preferable to two or three smaller ones? No; it is better not to have the rug

go under the bed, for dust accumulates there more quickly than anywhere else.

For what two reasons are many draperies, fancy bags, baskets, etc., in a bed-room even more objectionable than in other rooms Bed making, dressing and undressing, make much dust, besides one ought to spend from nine to ten hours out of the twenty-four in the bed-room; hence it should be reasonably free from dust catchers.

What is the most desirable covering for the kitchen floor? Linoleum. It is easier to stand on, and to clean.

If one cannot afford linoleum, what can be used? A runner or rubber between the stove and table where the most steps are taken, and a piece in front of the sink.

Is oilcloth satisfactory for the kitchen? Not if it is to have hard wear. The first cost is less than linoleum, but it soon gets worn and shabby, and in the end costs more than linoleum.

Will a floor finished in oil show the grease spots as badly as in hard finish? No.

SELECTING BED AND TABLE LINEN.

Is linen more desirable than cotton for the sheets and pillow cases? No; for it musses and wrinkles so much easier, and in cold weather it feels colder than cotton.

What is desirable in winter, where there is no heat in the room? Sheets made of outing flannel.

What sized cotton sheeting should be bought? For a full sized double bed, ten-quarters width; for a two-thirds width bed, eight-quarters; for a cot or single bed, six-quarters.

What size for pillows? Five-quarters or forty-five inches is a large size, forty-two inches medium.

What brands of sheeting are considered the best? The Wamsutta, Fruit of the Loom and Pequot.

Should tablecloths, napkins, towels and tea towels be of linen? Yes; good linen is always desirable for the table, but if one has a very limited amount to spend, so

every cent counts, the mercerized cotton can be used for every day use.

How can the life of a tablecloth be prolonged? As they always wear out first along the center fold, if after a time an inch or two is cut from one side that gives a new place for the center fold, and increases its length of service.

Will very fine linen wear well? Not so well as that with a little coarser thread.

What points will aid one in buying linen? Select that which is firm, but not too stiff with starch, and a pattern that covers the cloth will wear better than one with long unbroken threads.

Why is linen desirable for towels? It absorbs moisture much quicker than cotton.

Is damask linen preferable for towels? No; it is too smooth, so does not absorb the water as quickly as the huckaback, and is not as satisfactory if one wants to produce a glow to the skin.

What make of huckaback is best? Either the Scotch or Irish. It may be bought cheaper by the yard and hemmed at home.

Are fringed towels desirable? No; the fringe wears off.

What is usually preferred for bath towels? Turkish toweling. They are woven so they absorb moisture quickly though they are cotton.

How are linen lists and silver lists easily kept? On index cards.

EFFICIENCY ARRANGEMENTS OF CLOSETS.

What increases space for garments in a closet? A rod on which they can be hung over coat hangers.

How can this be fixed with little expense? Have a shelf 12 inches wide about 5 feet and 7 inches from the floor, with a straight row of three or four down-hanging hooks, on under side, about one-half inch from front edge. On these lay a brass rod such as is sold for about three

cents a foot for sash curtains. One about a yard long will hold sixteen garments. Each garment is in sight, and easily reached. Nightgowns that have given out may be slipped over suits to protect them.

If a bedroom has no closet how can this plan be worked out? Have the shelf 18 inches wide, and the hooks 9 inches from the front edge. Have curtains reaching to the floor, fastened on a rod on front edge of shelf.

What is the most convenient arrangement of boxes on shelves? If the shelf is wide, unless the boxes are large, put them across the shelf; they will be easier to reach. The contents should always be marked on the outside. The Dennison's gummed labels are very convenient, and look neat.

Why is it much better to keep hats in boxes? It protects them from dust and light.

How can they be more easily taken out and replaced? Fasten cover on with two strips of Dennison's gummed tape about four inches long, like a hinge, allowing a little extra play at edge of cover. This can be reinforced by inserting paper fasteners with head and two projections to bend outward. The cover will open as though hinged on. If the shelf is so high it is inconvenient to reach in the box, stand box on side with hinge on top, and rest hat on brim (if it is stiff) on soft paper. Then the cover opens out towards you easily.

What other way can the hat box be placed? It may be tacked against the wall, in a corner of the closet, if one of the strong reinforced boxes. Two clothes hooks may be fastened underneath for it to rest on, and the tape on outside of box, on side that has no support, can be fastened to a screw-eye in the wall. The hinged covers are very much more convenient.

What is most convenient for keeping shoes? A large, cretonne shoe bag, with three or four rows of pockets.

How should the efficiency closet have sewing supplies arranged? In a place easy to reach, have a small box with black hooks, eyes and snaps; another, with white

ones, one with white buttons and one with colored. These should all be plainly labeled on the end, so that they can be found without trouble. A yardstick in a convenient place is desirable.

EFFICIENCY IN CARE OF LIVING AND SLEEPING. ROOMS. VENTILATION.

What should everyone do the first thing on rising in the morning? Put the bed to air, opening it clear to the bottom.

Why is this necessary? Insensible perspiration filled with waste products is constantly passing off from the body (the feet also) so it is necessary to air the bed thoroughly, and this can be most effectually done while the bedding is still warm from the heat of the body. Put the pillows by an open window.

Does the clothing worn during the day need to be aired at night? Yes; the underwear should always be spread out so the air can penetrate it, the stockings hung over the back of a chair.

How often should the house be aired? Every room should have a bath of fresh air every morning; if it can sweep through a few minutes it is better. The sleeping rooms should always have one or more windows opened a ways at night, besides being thoroughly aired in the morning.

How can a direct draft be avoided at night? A thin cheesecloth curtain the width of the window, can be stretched across on a rod and fastened at lower corners and in middle of bottom, by small brass rings fastened to same and slipped over brass headed tacks. Plenty of fresh air at night is essential to health.

Do the rooms need fresh air during the day? Some of the windows should have either patent ventilators, or a board three inches high, just fitting across window, put under lower sash, then air will come in between upper and lower sash, without a draft.

Do the closets need airing? Yes; the closet door should be opened every morning before leaving the bedroom.

Why is extra ventilation required in a living room at night where gas or oil lamps are used? Because of the air they consume, and the gases they give off in burning, and there are usually more persons present in the evening.

If one is deprived of exercise in the open air and has much housework to do, what is very beneficial? To have the windows where one is working, open several hours, even in cold weather, putting on an extra garment for warmth.

How many small children be given fresh air in stormy weather when they cannot be taken out? Put on their wraps, and bonnets, and open the windows, try to avoid a direct draft, and let them play in the cool fresh air.

Why does one take cold readily in going from a very warm room where there are many people? There is an excess of moisture from the breath and perspiration of the crowd. The air being so saturated with moisture it cannot take away the perspiration from our bodies, the clothing becomes moist, the skin sensitive, and going into the cold, dryer air, it quickly takes up this moisture from body and clothing, and this evaporation takes away so much heat from the body that it sometimes causes a chill.

BED-MAKING.

What should be done before making a bed? Hang up all the clothing, and close the closet door, also the bedroom door.

Why is this necessary? Bed-making raises more dust than any other kind of housework except sweeping. The door should remain closed awhile until the dust has settled, or it will find its way into the other rooms.

How often should the mattress be turned? About every other day or three times a week.

What should be put over the mattress? A regular padded mattress cover or a clean blanket.

How should the first sheet be put on? Wide hem at

top, and right side up. Smooth out evenly, and tuck in firmly all around.

How should second sheet be put on? Wide hem at top, and wrong side up. It should be up high enough to fold over top of blankets.

Is it necessary to tuck each of the covers in separately? No; spread each on smoothly, turn over the top and tuck in before putting on spread. Put spread on, smoothing it out after getting it exactly in the middle; if it is an iron or brass bed, do not tuck in.

How will the pillows look best? If after shaking and beating a bit, to get fresh air in them, they are smoothed out flat and stood carefully in place, they will support the shams better, and make a neater looking bed.

EFFICIENCY SWEEPING AND DUSTING.

Is a vacuum cleaner better than a broom? Very much better, for when thoroughly used, it removes the dust imbedded in the carpet, and no dust is raised in the room; it is all drawn into the cleaner.

Will a carpet sweeper clean a carpet thoroughly? No; it removes the surface dirt, keeping most of it, but not all, in the sweeper.

If a room must be swept with a broom how ought it to be done? First open windows to blow the dust out; it is well to lower one from top; shake the curtains and hangings free of dust, and pin back close together. Dust the furniture; take light pieces out of room, and cover over heavy ones. Dampen a broom, shake the water off carefully, and then sweep with short strokes, not throwing the broom and dust up into the air. Rinse the broom several times, always shaking thoroughly. The dust that is stirred up flies about the room, settling on walls and furniture, and the room is no cleaner for having had it stirred up.

How long should the dust settle after sweeping? An hour or more, then remove covers carefully; go over all the base boards and doors, and large surfaces; wipe the

dust into the cloth, and shake out of the window occasionally. Do not flirt the dust off furniture into the room.

How should polished floors be cleaned? Wipe them over with a three-cornered floor dust mop. A tiny bit of oil may be put on the mop to collect the dust so it will not fly about.

What places should one watch out for? At the ends of radiators, where the pipes are. Turn the mop on edge to slip behind pipe, and across the other way, between radiator and pipe; this will prevent the little triangle of dust sometimes seen, around radiator pipes, which looks very badly.

Is a feather duster desirable? No; it should never be used; it simply removes the dust from one place to settle in another. The room is no cleaner than before dusting, the dust is simply scattered somewhere else.

What should be used to dust with? A soft cheese-cloth duster, with a little coal oil, or furniture oil, patted and wrung into it thoroughly, or better still close it up tight in a can or jar kept for that purpose—over night. The oil will then penetrate every thread.

Is there danger of putting on too much oil? Yes; there should not be enough to leave any oily streaks. Pat and wring the duster until the oil is evenly distributed, There needs to be just enough so the dust will cling to it.

What rule should be followed in dusting either floor or furniture? Always begin at a particular place, and follow a regular plan; the dusting will take less time than if no system is followed. Begin at the right of entrance door, and dust around outside of room, and halfway across spaces between rugs, and across the other half, when doing other side.

In dusting the furniture what plan is best? If the top of dining room table is very dusty, it is best to wipe that off carefully first, and shake the dust cloth out of the window. See that the wind is not that way so dust is blown back in. It is a good plan to begin with the furniture at right of entrance door, and go around on outside, then any in centre.

In dusting chairs, what is a good order? Begin at bottom of left back leg, then the back, down back right leg; front legs and cross pieces, then the seat. If there are any large surfaces particularly dusty, it is well just before shaking the duster to wipe over them carefully.

Why is it better to follow a regular routine this way? It saves time, and habit makes it easier.

In cleaning several rooms every day, is it better to finish one before going to the next? No; it is better to go over all with the sweeper if they need brushing up; then with the floor duster, and lastly dust. The dust has more chance to settle, and it saves time and steps to go the rounds with one implement, instead of changing constantly.

CARE OF THE VACUUM CLEANER.

In using a vacuum cleaner what two things will make it work unsatisfactorily? If the bag becomes too full of dirt the air will be held back and not enough will be drawn in to remove the dust, or if a stick or leaf becomes lodged in the hose or metal handle the dust will lodge there, and it will gradually cut off the current of air, and the cleaner will not take up the dust at all.

How can these troubles be avoided? Empty the bag every time after cleaning or using for a couple of hours or so. Pull the handle off the hose; hold the hose out straight a few minutes, with the power turned on; pull off the handle and give it several brisk taps on the floor, raising it up and down; this will usually dislodge any fluff accumulated in it. A wire or whalebone can be pushed through the tool opening that runs over the carpet, to see that nothing has lodged in the bend. A cleaner choked up with dust will not work well.

CARE OF THE CARPET SWEEPER.

How should the carpet sweeper be cleaned? Empty dust from sides, and if threads or hair is wound around the brush, run the shears between the rows of bristles, cutting the hair or thread, then it will pull out much easier, without injuring the sweeper. Oil it occasionally, according to directions with machine.

CLEANING AGENTS.

Is ammonia a valuable cleaning agent? It is. It is better to buy it at the drug store and then dilute it at once with water, about one-half; or much of it will be lost as it is very volatile. Do not put it in very hot water, as it will evaporate, and do no good.

Is coal oil valuable in cleaning? Very; it cuts many kinds of dirt.

Is borax useful in cleaning? Very, and is the least injurious of the alkalies.

It is better to use when washing colored goods than ammonia, as it has less effect on colors.

How can you determine whether a substance is an acid or an alkali? Blue litmus paper will turn red in an acid solution, and red litmus paper will turn blue in an alkaline solution.

WASHING WINDOWS.

Wipe over inside and out first with a dry cloth to remove the dust; then after washing the framework with a wet cloth, cleaning the corners with a wooden skewer, wash the glass with warm water with a little ammonia or soda in; always wring the cloth quite dry. Wipe dry with dry cloths and polish with crumpled newspapers. Or a thin paste may be made of whiting and ammonia, and a little water. Rub this on in a thin film, let dry thoroughly, then polish with soft paper. This cleans them very quickly.

CLEANING METALS.

How can most metals be cleaned? By washing in hot water with some borax or soda, or they can be wiped off with a little kerosene.

What brass polishes are good? There are several good ones on the market.

Should ammonia be used in cleaning brass? Never.

Why will silver wrapped in white tissue paper sometimes tarnish? If sulphur has been used in bleaching it will act on the silver and turn it. The sulphur in rubber bands will turn it.

If silver tarnishes very quickly, what does it indicate? That there is either coal or illuminating gas escaping in the room.

What must one guard against in silver polishes? Any gritty substance which would scratch.

Is it advisable to use electro silicon? It cleans the silver nicely, but is hard on it as it rubs off imperceptible quantities; long continued use will show, especially on plated silver.

Is the old-fashioned whiting good for cleaning silver? Most of the silver polishes for which we pay fancy prices are made of it.

How can it be used? Sift through a fine cloth, unless it is very fine already; make a paste with ammonia or alcohol, coat the silver over with it, and when dry, rub off with tissue paper or soft cotton cloth, and polish with chamois.

How can rust be removed from iron or steel, if not very deep? Rub with coal oil.

CARE OF THE BATH ROOM.

What is the easiest way to remove the film of dirt from sides of bath tub? Wash thoroughly with good naphtha soap. Keep a piece handy, and insist where a tub is used by more than one member of the family, each one must wash it out as soon as the bath is finished. Infectious diseases may be contracted from a tub used by another, or from towels.

How should the toilet seat be cared for? After all the slop jars have been emptied, it should be thoroughly flushed, and a curved toilet brush run all over it, and inside the curved neck.

If the china part has become discolored through neglect, what should be used to restore it? Muriatic acid will remove discolorations, and also dissolve any sediment in bottom of urinals. But it is a deadly poison, and must not even be gotten on the hands or clothing, as it will injure them. The plumbing must be very thoroughly flushed after using, as it is otherwise hard on iron pipes.

Why should all the woodwork about the seat be kept thoroughly varnished or coated with Japalac? Because unprotected wood quickly absorbs water and odors also, and becomes insanitary.

Should the same cloth be used to wash out the wash basin, and the toilet seat? No; all excretions from the body contain body poisons, and sometimes disease germs, this is doubly true of that from the intestines and kidneys, so brushes or cloths used for cleaning urinals or toilet seats should be kept for that purpose only.

Are brushes to be preferred to cloths? Very much, for they dry so much quicker, and damp cloths quickly become insanitary.

What should be done with wet brushes? They should be shaken and stood brush side down. If turned on the back, water will soak into the wood and injure the bristles.

How should the pipes in bathrooms and sinks be cared for? They should be flushed once a week with plenty of scalding water, and while hot, have a solution of washing soda one pint to three gallons of boiling water, poured down them. About a quart to each pipe, and two to the kitchen sink.

Are large rugs objectionable in a bathroom? They are; they absorb odors, and are liable to be soiled. There should always be a bath mat hanging in the bathroom. The wash bowl and standard top need washing every morning.

OUT-DOOR CLOSETS.

In the country and villages where there is no sewer system, what precautions should be taken with the out-door closets? A box of dry earth (not sand) should be always kept in the toilet, and a small shovel. Excreta should have a sprinkling of this dry earth over it always, for it acts as a disinfectant, and prevents flies having access to it.

What other precautions are necessary? Copperas dissolved in water; three pounds to two gallons of water, or a strong solution of carbolic acid, should be freely dashed down over the contents, at regular intervals.

Is country air in a village always pure and wholesome? It is not. Often the closets are so poorly cared for in villages that they are an offense in the summer time especially in the evening to those passing along the street. Such conditions should not be tolerated.

Should flies be allowed free access to open closets? No; they crawl over the filth and then make their way to the kitchen and dining room there to deposit their burden of filth and disease germs on the food, dishes and dish towels. Typhoid is carried in this way.

What must be done for the protection of others whenever there is a case of typhoid? All excreta from the patient, whether liquid or solid, must be thoroughly treated with carbolic acid, before emptied into the city plumbing, or buried in the ground in the country.

FLIES, MOSQUITOES, WATER BUGS, ROACHES AND BED BUGS, NOT FOUND IN THE EFFICIENCY HOME.

Is it necessary to have flies in the kitchen? They should not be tolerated in the house.

How can they be kept out? The windows and doors should be carefully screened. If the netting springs loose it must be tacked on again. If one cannot have screens for the windows, netting can be tacked over them.

Why is it so important to keep all flies out? They are hatched in filth, seek it wherever they go, and particles of it cling to their feet and wings; besides they carry the deadly germs of typhoid fever, other intestinal diseases, and tuberculosis, diphtheria, etc. In our Spanish war more of our soldiers were killed by typhoid carried by flies, than by the bullets of the enemy. Protect your family from flies as you would from wild beasts.

What can be done besides screening the house? Have fly spats always at hand and kill every one. Fly paper may be kept around in the kitchen.

What other way is there of killing them? Shut the room up tight, and put twenty drops of carbolic acid on a hot shovel, or lid, the fumes will kill them. It will not injure the person using it this way, but must be kept most carefully out of reach of children, or where it might be taken by mistake, for it is a deadly poison. Keep the kitchen clean, leave nothing about for them to feed on; crumbs will attract them.

What precaution should be taken with the garbage pail? Keep it tightly covered; never let bits of refuse fall outside, or water leak from it; keep a fly trap on top of it. Use newspaper to line garbage can, as it will help to keep it cleaner.

When is the most important time to destroy flies? In the very early spring, when there is only an occasional one. It is because they multiply with such unbelievable rapidity, that they become so numerous by August.

Does one fly killed in early spring make much difference? It will make millions less flies before the summer is over.

What other time is it so important to kill them? In the late fall, after the cold sets in, for only a few survive the winter, so every one of these killed means millions less the next summer. Fly traps should be kept on porches.

Should mosquitos be allowed in the house? No; for one variety carries malaria, and yellow fever, and they all should be carefully guarded against.

How can one prevent them from breeding? Keep all cisterns and rain barrels covered with netting, and see that there are no tin cans, or other places for water to stand.

Where do they sometimes breed in city houses? In unused toilets and wash bowl traps.

How should pools of stagnant water be treated? With a little film of coal oil. It will destroy the larva.

Should water bugs and cockroaches be allowed in the kitchen? Never, under any circumstances.

In an apartment where there is a ventilating flue they can crawl through from other apartments, what will keep them out? Tack fine wire gauze over the ventilator.

If there is a dumb waiter in the apartment what should be done? Put a border of insect powder all along the ledges in the inside.

What should be done if bed bugs get into a bed. It should be taken apart and cleaned thoroughly; use some good bed bug poison.

How can the nits or eggs be destroyed? By varnishing the bed carefully, over all the inside, after taking it apart, going over every particle of it and every crack, also the woodwork of the springs, then varnish the base boards of the room, reaching up into the cracks along the lower and upper edges.

What good will this do? The bug poisons will not kill the nits or eggs, but the varnish will coat them so they can never hatch.

If they have gotten under the wall paper, what must be done? It must be all torn off, and bed bug poison put on all along the top of the base board, and in all the cracks. Varnish or paint the baseboards, not letting a single crack escape.

To rid the house of insects of various kinds write to the Bureau of Entomology, of the Department of Agriculture, Washington, D. C., for information. It will be furnished free of charge.

THE UNSEEN ENEMIES IN THE HOME.

What may we call unseen enemies in the home? Bacteria, or germs; for while they are too minute to be seen without a powerful magnifying glass, they have power to destroy health and even life itself.

How large are bacteria? It is estimated that 600,000,000 could be comfortably lodged in a space occupied by a grain of sugar.

Who first began to grow and cultivate these bacteria or dust plants? Louis Pasteur, in France, less than seventy years ago. He laid the foundation for the science of bacteriology.

Who discovered that bacteria is the cause of disease, and not the effect of it? Robert Koch, more than twenty years after Pasteur made his experiments, built up the germ theory of disease. Many brilliant discoveries have since been made regarding germ diseases.

Mention some germ diseases. Typhoid fever, yellow fever, tuberculosis, malaria, Asiatic cholera, pneumonia, colds.

Why is it so necessary for the surgeon to wash and scrub his hands, and also use powerful germicide, before coming in contact with a surgical case? Because the wrinkles in the skin of the hands have the depth of ditches six or eight feet deep in comparison with bacteria, and only a powerful germicide can destroy them when so deeply lodged.

What effect do bacteria have on our food? They change it into a moldy, putrid mass, unfit for use.

What makes milk sour? The bacteria in it. They are much more abundant if the cow has not been carefully cleaned before milking; if the hands and clothing of the milker are not clean; if a wide open pail is used, or if the air of the stable is not fresh and clean and free from dust.

Why should milk be quickly cooled after milking, and then be kept covered? Because the bacteria multiply much more quickly in a warm temperature, and if milk

is left uncovered, additional bacteria from the air, get into it.

Is unclean milk dangerous? It causes the death of thousands of young children every year.

Why will canned fruit spoil unless thoroughly cooked, and the cans and covers washed clean and sterilized by scalding or heating, and also unless the cans are airtight? Because any bacteria that has not been destroyed by heat, or get in because the can is not tight, will grow and multiply, and thus cause the fruit to ferment and spoil.

In canning why should one not touch the inside of a fruit jar or cover after it has been sterlized, or leave it standing in the air? Because of the ever-present bacteria, or dust plants, on our hands and in the air.

Is there ever living yeast plants left in bread after it is baked? Yes; if it is not thoroughly baked, and rapidly cooled afterwards to prevent further growth of any bacteria that have not already been killed.

Was bread ever made from yeast plants found in the center of a slack-baked loaf of bread? Yes; in the laboratory.

If canned fruits or vegetables that are difficult to keep are reheated the second day will they need so long cooking the first day? No.

Is slack-baked bread unwholesome? It is; and may cause serious digestive disturbances. Twice baked bread is much better for one suffering from indigestion.

Why do dried foods keep while the same food quickly spoils in its natural state? Because bacteria cannot live and thrive without moisture.

Why is salt used in preserving meat? Because bacteria will not grow in a strong salt solution.

Why will vinegar keep pickles from spoiling? Because bacteria cannot thrive in strong acids.

How are we protected from the many bacteria we must necessarily swallow in the food we eat, the water we drink and the air we breathe? The secretions of the stomach destroy some of the bacteria, and the white cor-

puscles of the blood our "white guardians" as they have been called, destroy still others.

Does cold paralyze these "white guardians" so they are not able to destroy the disease germs so well? Yes; the germs then have a better chance. That is why some germ diseases are more prevalent in cold than in warm weather.

Why are some germ diseases favored by insufficient clothing, and lack of food? Because the body temperature is lowered by insufficient clothing and lack of body fuel in the form of food.

When is the body able to destroy the germs to such an extent that they will not injure it? When in perfect health, and not over fatigued.

What effect has alcohol on these "white guardians"? It paralyzes them so they are not longer able to lay hold on the disease germs and destroy them.

If one is intoxicated when he contracts pneumonia, what is the result? Almost certain death.

What conditions weaken the body so it will easily succumb to disease? Living in damp, sunless, ill-ventilated, dusty rooms, eating badly cooked food, and either too little or too much food, lack of exercise, and neglecting to keep the body free from waste products of digestion, lack of sufficient pure drinking water, and regular bathing.

Why is it more sanitary to have clothing boiled when it is washed? Because there may be bacteria in the secretions of the body, and boiling destroys them.

Are there bacteria or microbes on wash cloths and tooth brushes? Unless they are thoroughly cleaned. Washcloths should be hung in an airy, light place; in the sunshine if possible, and should be boiled often.

Are washcloths left where they do not dry thoroughly and have a bad odor fit to use? No; if a clean washcloth has to be carried damp in traveling, sprinkle borax over it before rolling up, and it will keep sweet all day or longer, even in hot weather.

How should tooth brushes be treated occasionally? Soak in a strong solution of borax, or boracic acid.

Is it well to leave sweepings and soiled dustcloths around? No; the sweepings should be burned, and the dust cloths washed.

Why does the escape pipe of the refrigerator and the kitchen sink need to be carefully cleaned? Because it will otherwise become covered with a mass of slimy bacterial growth; there will also be many germs of putrefaction.

Are closets in old houses that are damp and dark suitable places to keep food? No; the woodwork and plaster are often so filled with mold spores or seeds that are floating in the air, and will quickly cause the food to mold if the air is warm and moist.

What should be done to make an old house more sanitary? It should be thoroughly dusted, scrubbed and cleaned, whitewashed, painted and disinfected.

Will dust plants injure the furnishings of the house? They will cause mildew on clothing, books, etc., and may develop so far as to destroy them, and they injure the health of the occupants of the house.

Where are bacteria generally found? Clinging to dust particles, that is why dust is so dangerous in the home.

In most cases what causes food to spoil? It is the growth of the little invisible bacteria, or plants that have been carried onto or into it through ordinary dust.

Are there any good bacteria? Yes; they are found in great numbers in the soil where they lay hold of every particle of dead animal and vegetable matter and convert it into harmless inorganic matter. There are other harmless bacteria that give flavor to cheese and butter, and others also that have a high commercial value.

Are not candies for sale on the street, and left exposed to the air in department stores, laden with bacteria too? They are and should never be eaten. Some day we may become sufficiently civilized not to have any of our foods exposed for sale in places where they become laden with bacteria and disease germs; but until then let us protect ourselves by not buying those foods when they cannot be washed, and see that those that can be are well washed.

LABOR SAVING DEVICES THAT ARE WORTH WHILE.

What labor saving devices are worth while? First of all the vacuum cleaner, the carpet sweeper, the triangular floor mop for dusting polished floors, the self-wringing mop, instantaneous gas lighter for the gas range, the radiator brush, the long-handled lambs' wool duster, for wiping down walls and ceilings, the long-handled crooked toilet brush, the long wire-handled refrigerator pipe brush, the drip pan brush, the vegetable brush, the fireless cooker, the wire dish drainer with a pan to hold it, with holes to allow water to run out as dishes are scalded, with the oblong one a sheet iron roasting pan can have holes driven at one end and be placed a little beyond end of drain board, so water will run into sink; the dish mop, the dish-cloth of woven strips of tinsel for washing cooking dishes where food has cooked on, the meat grinder, the Dover egg beater, the wire whip for beating whites of eggs, the apple parer, the apple corer, the putty knife to clean grease that has caked on to griddles, etc., and food boiled over on the tray under the burners of the gas range, or food burned on (this is very useful and can be had for fifteen cents), measuring cups and spoon, potato ricer, and as soon as a satisfactory one is invented, more useful than anything else will be a good dish washer. Then indeed will woman's long delayed emancipation from kitchen drudgery be accomplished; but in the meantime do not lean over the sink to wash dishes or allow anyone in your kitchen to. This is an entirely unnecessary burden to be put upon anyone. And last, but not least, the high kitchen stool. And, of course, if any laundry is done in the house, some kind of a washing machine; even in a small apartment kitchen, one of the little hand vacuum washers, or the vacuum washer that is used in a wash boiler, is most useful when there is not room for a regular machine. An electric or gas iron saves many steps and time, and reduces the heat.

SELECTION OF COOKING DISHES.

Are seams in cooking dishes objectionable? Very indeed. They are lodging places for dirt, grease, dishwater and microbes.

What kind of wear is best? Aluminum, for it does not scale off, or crackel, is light to handle and is very durable.

Should food that has been salted be put away in aluminum dishes? No.

What is best for a tea pot? Earthenware.

Are earthenware dishes desirable for mixing and storing food? Not after they begin to crackel; they absorb dirt, grease, and have a rancid odor, and should not be used then, either to hold food, to mix, or bake in.

When are they especially good for baking? Where a slow heat is required, as they cook more slowly.

What is best to keep butter in? A graniteware bucket with cover. It should be rather broad and not too deep, so the butter can be sliced off nicely in it. Never use a stone crock for butter. It will soon get so it will absorb the oil and become rancid, and give the butter an unpleasant taste. It is heavy and clumsy to handle, even if small.

What is best for cooling water? Large mouthed glass jars, with glass covers that clamp down with a wire spring. They are much better than bottles, for they can be more easily washed, and the sediment in the bottom removed.

What is best for a dishpan? Heavy block tin, because it is lighter to handle than a large one of agate ware.

What is best for keeping lettuce or watercress? A pail that shuts up tight and can be put in the ice box, or a cool place. They keep better shut away from the air as do other fresh vegetables.

Is a small refrigerator desirable? No; it will not hold enough ice in very hot weather, and is very inconvenient for holding much food.

EFFICIENCY ARRANGEMENT IN THE KITCHEN.

What is efficiency arrangement in the kitchen? The best possible placing of furniture and utensils, the table or mixing board in the light; gas range out of a direct draft; refrigerator where ice man will not have to track across floor, and as far as possible from the range. The furniture and utensils placed so the fewest steps will be taken in preparing a meal, and putting things away.

What is a great time and nerve saver in the kitchen? Having everything in the best place for it, and always in that place. Avoid reaching up high, or at arms' length, to open closet doors or to reach things in constant use. Have fasteners lowered if too high.

How should dishes be arranged in a closet where one door has to be opened before the other? Place the dishes or utensils most used, so they can be reached when first door is opened.

What can be substituted for a kitchen cabinet, if necessary? A large closet, fitted with shelves and doors. It should be so built, that there can be either a table or shelf, not too wide, under it and about 32 inches from the floor, or if it has a narrow top of its own between an upper and lower closet, a shelf or mixing board, the right height may be arranged to draw out, by putting heavy strips at each end for it to slide under, it should be reinforced with strips underneath for strength.

How can space be economized? Have a narrow shelf three inches wide at back, above lower shelf to hold spice boxes, etc., each carefully labeled. It will not interfere with things on the shelf below.

What else will add to its efficiency? A narrow shelf resting on the cross pieces at the back, where small flour and sugar cans are kept. This closet should also hold measuring cup and spoons, egg beater, knives, basins, stew pans, and mixing and baking dishes most used.

What spells *inefficiency* in the kitchen? A sink over which some one has to bend the back when washing

dishes. This can always be avoided in some way, and should never be tolerated. It is a drain on the nerves and strength that no human being should be subjected to. One may not realize the relief it is, until after getting accustomed to the new way, for we are such creatures of habit.

Where should the tea pot be kept? Near the tea canister; and the coffee pot near the coffee can, with measuring spoons near by.

Where should the salt box be kept? One covered one near the range, and one near the working table.

What is a convenient way to keep the can opener, corkscrew, gimlet, bottle opener, etc.? In a drawer with a row of screw-eyes or hooks they can be thrust through, across inside of front of drawer. Hammer can be hung with head resting on two nails a little way apart.

What will save an endless number of steps in preparing a meal and putting food away? To have the refrigerator near by, in the kitchen, if cooking is done by gas. It may be very poor economy to save a little ice and have to go to the cellar constantly for supplies. Perhaps a window could be cut in the kitchen, and the refrigerator placed outside, opening into the kitchen, when the window was raised, and a shelter made of two large boxes, with sawdust between that would enclose the exposed sides of the ice box, if a little shelter could not be built for it.

Is a large kitchen desirable? No; it makes too many steps from stove, to table, sink and closets, and there is more floor space to be swept and mopped. It should be well ventilated, and now that blue flame oil stoves for cooking have been perfected, if one can not have a gas range, they may well be used in summer in place of a coal fire.

It is very interesting to plan a more efficient arrangement of the kitchen. Many housewives walk unnecessary miles in the kitchen. If there is but one pair of hands to do everything, perhaps cutting a small window, would allow things to be slipped through into the dining room, and back again.

What is the most satisfactory waste basket for the kitchen? A good sized one of papier mache; dirt cannot fall through, it is light to handle, can be washed and kept clean.

Name one indispensable article of furniture for the kitchen? A high stool to sit on when working at the table, preparing vegetables, fowls, fruit, etc. It eases tired feet and aching back, and is very soothing to irritated nerves. It is like oil on troubled waters.

Why keep a few newspapers in the kitchen? They are most excellent to wipe off the top of the kitchen range. They remove the grease and dirt without soiling the hands. They are also good to empty the carpet sweeper on.

What should be done with the broom? It should be hung up, in a broomholder, never stood on the floor, as it will get out of shape.

How is a good way to have recipes in frequent use arranged? On cards that come in card index sets, they can be hung over a nail in a convenient place, when in use.

How can the recipes in this book be conveniently used? Clamp in an ordinary strong letter-holding spring clip, and slip it over a nail.

What will help in keeping the kitchen floor clean? To have a cloth always at hand, and wipe up at once anything spilt on the floor before it is tracked about.

Are damp cloths and mops objectionable in the kitchen? They are very insanitary; they breed germs, and attract water bugs.

What is the best way to avoid water bugs, roaches, etc., in the kitchen? Never leave crumbs of food around, keep everything scrupulously clean, and dry.

EFFICIENCY IN DISH WASHING.

What is required first of all? That one should not bend over even a little in washing dishes. If the sink is too low a board with flanges can be put across one end.

What is another inefficient arrangement? Having the drain board, or rinsing pan, at right of dishpan, so every dish and piece of silver has to be passed over the right hand, or taken hold of by it before it can be put down. Time, strength and energy is thus wasted, that might be better employed. A carpenter may be able to arrange a folding or sliding board at right side of drain board. Better carry the pan a few steps to empty than to lean over it washing dishes.

What should be done with dishes that have had milk in them? Rinse first in cold water. Those with egg or flour mixtures on, rinse or soak in cold water as hot will cook them on the tighter. Those with gelatine stuck on, soak in cold water.

What if greasy? Wipe the grease off with paper first, then pour hot water over.

What are the first steps in efficiency dish washing? Fill cooking dishes and milk bottles with cold water as soon as emptied. Scrape and sort the dishes; a soft paper, or a rubber dish scraper is best; is not so hard on the gold and other decorations. Wash glass first, then silver, china, and lastly cooking dishes. The table dishes can be put in wire draining basket set in pan with holes at end—so water will drain into sink—scalded, and will be nearly dry by the time the cooking dishes are washed. Some maids prefer to wash the cooking dishes between serving the courses at dinner, which is an excellent plan.

How can one avoid having to wait for hot water? Form the habit of seeing that the water will be hot when wanted. Turn on the spigot while sorting the dishes if water has to run a little while to be hot. Hot water is necessary to wash dishes easily and well.

Do tea towels need special attention? They do; for if they are not rinsed out every time or two they are

used they will have a rancid or unpleasant odor which will be noticed when drinking from glasses wiped with them. Never use tea towels that do not smell fresh and clean.

What should be done with the dish cloth? It should be washed with soap every time after using and thoroughly rinsed; scalding hot water poured over it helps to keep it sanitary. A dish cloth should be of porous material and hung in an airy, light place, as well as the dish towels so it will never remain in a damp condition. A dirty, greasy, sour, ill-smelling, or slimy dish cloth belongs to the dark ages; it has no place in the up-to-date kitchen, and is a disgrace to any housewife, and a menace to the health of the family. How can you prevent the sink becoming stopped up? Always pour the water into a sink strainer and do not pour in grease.

In cooking, if anything burns on, what can be done? Fill dish with hot water, add washing soda and boil, this will loosen the burnt food. Do not allow grease to become caked and burned on griddle or roasting pan. Boil in strong washing soda, and scrape with old knife; or putty knife is better. A dish cloth of woven strips of metal is most useful in removing food that sticks to baking dishes.

How can the housewife who has everything to do herself save time and extra steps? By having a silver box, in which the flat silver can be dropped in the separate compartments as wiped, and set aside from the dust until meal time, when it can be carried directly to the table, and arranged. The needed number of glasses, bread and butter plates, and any other used at every meal without warming, can be put on a tray as wiped, set aside, and carried to the table when needed, thus saving quite a little unnecessary handling in the course of the day.

Should the sink be washed out with the dish cloth? No; never. Keep a special cloth for it. The water the floor is mopped in is emptied in it containing filth and germs tracked in from the street, hands are often washed there, and much dirt and germs cling to it.

CARING FOR THE REFRIGERATOR.

Does the refrigerator need much attention? It does, or it will not be a fit place to keep food. Never allow food to remain in it until it becomes moldy, or spoiled. If anything is spilled, wipe it up at once with a damp cloth; never leave it to dry on.

How often should the refrigerator be washed out? Once a week. Remove shelves, scrub and wash them, and the sides and bottom of refrigerator. Look carefully for dirt in the creases and corners. Clean the pipe with a long wire-handled brush that is made especially for the purpose; see that it reaches through bottom of pipe. Scald it down with boiling water in which a little washing soda has been dissolved. See that drip pan is empty first, that it may have the benefit, then scrub that out. Sometimes get down and reaching under, run the finger up pipe to make sure there is no slime in it; unless the pipe is a removable one, you can examine without. A refrigerator with a slimy pipe is no fit place to keep food. Run the fingers over the drip pan sometimes to make sure it is free from slime for it will accumulate there if not properly cared for.

Should there be any special arrangement of food in the refrigerator? If the butter, milk, eggs and fresh fruit are each kept in a particular place, also the left-over meats, vegetables and desserts in one place, one can put the hand at once on what is wanted, also it is much easier when going to market, to tell quickly what is wanted, or in planning a meal, what left-overs there are.

How much ice should be ordered at once? A large piece every other day will keep better than a small one every day, and it saves dirt and trouble. Never put warm food in the refrigerator.

How is the best way to guard against the drip pan running over? By emptying it the first thing every morning, then it will not be forgotten, and much time and trouble will be saved.

MANAGEMENT IN THE HOME.

Can one manage a home successfully without special training? It is impossible to, unless one has information, and working schedules that have been carefully prepared.

Is it as important for the home-maker to have a knowledge of home-making as it is for the business man to have special training along his line of work? It is; for the health and happiness of the family depend largely on the knowledge and skill of the one at the helm.

Can one direct others in matters she does not thoroughly understand herself, or make a fair, just schedule for work if she knows nothing about the time and effort it takes to do the work properly? No; one should know the exact time necessary to do each task about the house properly and well.

What is a great help in housekeeping? To have a regular order of work for things that have to be done every day, and one for the *extra* things that come each day.

What amount of work is it right to expect of a maid? That depends upon the size of the family; whether there is much company and entertaining; whether the home is large or small; whether the rooms are sensibly furnished, or cluttered up; whether there is much answering the door bell; whether there are many steps to take in answering it; whether the refrigerator is in the kitchen, and everything so arranged that few steps are necessary in preparing a meal; how elaborate the meals are, whether there are several maids; whether the maid has to help with the children; whether there is an invalid to be waited on; whether personal service is required; whether some members of the family are irregular at meals. So we can see that it is impossible to standardize the work in various homes, when such a wide range of conditions prevail.

What will help in keeping the household machinery running smoothly? Being thoroughly skilled yourself. Try as far as possible, to carry out the Golden Rule. Try

to put yourself in the other one's place, and ask what you would think fair and right. Require the work done properly, but be just, fair, and considerate. See that your maid's work is planned with intelligence; that she has the necessary tools to do it properly and well; that she has a comfortable room, and a couple of hours to rest each afternoon. That on her afternoon out she gets out in good season, and dinner might be put a little later that day, and be made simple, if she is to return to prepare it. That she has only the necessary work to do on Sunday, and a dinner that does not require a lot of extra work. That she has each Sunday afternoon off after the "early dinner" work is over, not returning for supper, if she is required to return from her regular weekly afternoon off, to get dinner.

Is it any economy not to furnish some of the labor saving devices? No; for they are a saving of time.

Where there is a maid of all work; or in a large family, where the housemaid has much to do, or is a long distance off, or has to go up or down one or more flights of stairs, in answering the door bell, what should the mistress do? Always carry her own latchkey. It is helpful sometimes for the family to have a special ring; as three short taps; then if the maid is busy, she need not wait to change her apron. This saves her time and that of the family as well.

Should the kitchen be made attractive? Yes; for it is much easier to work in pleasant surroundings. It reacts on the feelings and disposition. To be shut up all day in a dingy, unattractive kitchen, is trying to the health and nerves.

If much overtime has been necessary, should special recognition be made of it? Yes; either by extra pay, or extra time off.

In a family of growing children, with a limited amount of help, what is the best way to have the children help in the home tasks? By giving each one, both boys and girls, a definite task to perform, and make each one responsible for it.

If the mother has no helper is it advisable for her to require nothing of the children, in order that they may have more time for study? No; it is a great mistake; it is not giving them a square deal, for it will make them selfish and unappreciative.

Where a mother does her own housework, how old should the children be before they are allowed to help with it? When they are not more than three or four years old they will be perfectly delighted to bring the dust cloths, or help smooth out the blankets on the bed, or put the shoes in their places. Even if it is more of a hindrance than a help, it gives the child a sense of helpfulness, and aids in his character building. It will prevent children from becoming selfish and unwilling to help when they are a little older.

Would this plan not be very troublesome where there were many children? One mother with five children had trained them in this way, and every morning before leaving for school each child under her careful direction—the boys as well as the girls—assisted in doing up the dishes, making the beds, putting the house in order, and dusting. They were a happy, contented family. They became efficient helpers, and the mother was not looked upon by her family as their rightful drudge.

What other effect did it have on the children? They grew up into helpful, efficient, self-reliant young people.

Where does efficiency begin? It has been rightly said that efficiency begins in the stomach; and the health and happiness of the family certainly depend more upon the kind of food, the way it is cooked, served and eaten than upon anything else except a clear conscience, and a real, vital belief in an all-wise, over-ruling Providence. No one would think of trusting an unskilled mechanic to repair his automobile, tune his piano, install his electric lights, or heating system, to invest his money, or prepare the plans for his house. No woman would give expensive materials for her gown into the hands of an unskilled seamstress, but when it comes to the preparation of food, upon which the efficiency, health and happiness of the

family depend, we have thought that any one, no matter how ignorant or unskilled, would answer the purpose. Many a home has been wrecked because its mistress was ignorant or indifferent to her responsibilities. Many a man has been driven to drink, by cold meals and bad cooking. No one can direct others wisely and well in any line of work she does not know how to do herself, and the proper length of time it takes to do it well. Skilled efficient domestics cannot always be had at any price; neither can they be expected to do their best when employed by one incompetent to direct them. Emergencies may arise when help cannot be had, therefore, no one has a right to assume the responsibilities of a home-maker, whatever the size of the income, without fitting herself for the high responsibility. A turn of Fortune's wheel may make her dependent upon her own resources. Employers are largely responsible for the incompetence of those in domestic service, for it every woman employing help were properly fitted to direct them every home would become a training school to raise the efficiency of the workers therein. But as long as the mistress feels housework is degrading and beneath her attention, so long must we expect indifference and incompetency in domestics.

SYSTEM IN HOUSEWORK.

Is system necessary to the efficient running of a home? It is; for much more can be accomplished in a given time and with less fatigue and nerve strain, than without system.

Why is it better to have the housework carefully planned, so that it is evenly divided over different days? Because it prevents days of strenuous cleaning and over-exertion during an entire day, without rest.

What harm will that do? While all the muscles need work, or exercise of some kind, to keep them strong and healthy, exercise or work tears down the cells of which the muscles are made. These broken down tissues enter

the blood, poisoning it, but it is purified as it passes through the lungs, where these waste products are thrown out into the air by the breath, excreted through the kidneys, or destroyed in the liver. During a normal amount of working time, these waste cells are eliminated or destroyed by the body, but during long periods of exertion they accumulate faster than they are expelled; then the body becomes fatigued or literally and actually "poisoned."

How can this be prevented? By resting occasionally for three or four minutes, taking deep long breaths, and relaxing perfectly.

Does it require *more effort* to work when one is tired? It does; so the body becomes more poisoned doing the same amount of work than when rested.

Does it take a longer period of rest for the body to expel these poisons when over-fatigued than when slightly tired? It does, very much. That is why long hours in industry are so injurious to the workers. Overtime for shop girls during the Christmas season, and for factory workers during rush periods require a long rest time, perhaps months, for them to recuperate from this excessive poisoning.

Why are late hours even when spent in social amusements, with lack of sleep, injurious to those who are constantly employed during the day? The body cannot eliminate all the poisons, and build up the tissues again, before the beginning of the next working day, for the body recuperates more quickly during sleep.

Is the same true of girls in school? It is; for faithful school work acts on the brain, and plenty of sleep is necessary to keep it in good working order.

What bearing has nourishing, properly cooked food on fatigue? The body needs it to build up the torn down tissues; these cannot be built up without proper food. The young wage-earner, or school girl who makes her lunch off pickles, pie, candy, and coffee or tea, will certainly injure her health and reduce her efficiency.

Have the efficiency experts made any discoveries in regard to labor that are of value to the housewife? Yes; she might learn wisdom from the experiment tried at the Bethlehem Steel Works where the men were loading pig iron. Each man picked up a pig weighing about 92 pounds, carried it up an inclined plank, and dropped it on a car. The men averaged loading 12½ tons of iron a day. Then the efficiency expert took one man and timing him with a stop watch, made him rest every so many minutes. At the end of the day he had loaded 47½ tons, instead of 12 tons, and was no more tired.

Why was this? The study of fatigue has shown that "Rest must adequately balance exertion." When the man was working constantly, he used up the tissues of his arms, both holding and carrying the heavy weight, faster than the blood had a chance to restore them to their normal condition. When he rested every so many minutes, the blood built up the tissues that had been torn down by the heavy work. When carrying half pigs he did not need to rest as often, for the strain on the muscles of the arms was not so great. Having learned how to increase the amount of work, his wages were increased 60 per cent. If he had not been taught how many minutes to work and how many to rest, but had just been promised the increase in wages if he moved the 47½ tons he would have gone at it without stopping doubtless, and would have worn himself out by 11 or 12 o'clock, with his task unfinished, because his muscles would not have had a chance to recuperate by frequent rests. But having acquired the habit of resting at proper intervals, he was able to work all day at even gait. Even if one is doing brain work, to rise from the desk, stretch, take a few deep breaths, and relax completely in an easy chair for three or four minutes, gives the brain time to recuperate, and more can be accomplished with less fatigue.

Is it worth while for the home maker to try this plan? It would result in her accomplishing more in a given time with less fatigue. But when she relaxes, she must relax

completely, and not be on nervous tension to get back to her work.

In what other way may household tasks be lightened? By cutting out every unnecessary movement in doing the work. A young girl attracted much attention at an exhibition, by the rapidity with which she pasted labels on boxes. Gilbreth, the efficiency expert, showed her she was not doing it the best way, and following his instructions, cutting out all unnecessary motions, instead of pasting twenty-four in forty seconds she pasted fifty-two in forty seconds, and without any more effort, simply because she avoided all unnecessary motions.

Of what help is this example to the housewife? She can lighten her tasks by doing away with unnecessary motions. If she has to open two closet doors to get a measuring cup, put it where she only has to open one. Let her count the number of times she goes up and down stairs to the refrigerator in the course of the day, and see if some way cannot be made either to have a trap door or dumb waiter running into the cellar screened in such a way as to keep out flies, and leave some of the things on it in the cool cellar without having to go to the refrigerator so much. Or better still have the refrigerator either in the kitchen or just outside, properly protected. Let her study in every way to lessen the number of steps and motions it is necessary to take during the day. Let her get her housekeeping reduced to a science. It has been found that workmen accomplish just as much in an eight-hour day as they did in a ten-hour day, because they are more rested and in better condition for working. The desirable way is not to have the housework drag around all day, but by frequent rests of three or four minutes, with deep breathing and perfect relaxing to keep the muscles up to normal, to finish the work and then have time for recreation, or a nap. A short nap after the noon meal is a wonderful restorer of health, and nerve force. The body recuperates more quickly during sleep. If your family is large and your home cares many try these suggestions faithfully and see if life will not seem brighter

and more worth living, and if you yourself will not be worth much more to your family and the world.

Is it possible to have a plan of work, that will fit every household? No; for conditions vary so. Below is a plan that worked well in a conveniently arranged eight-room apartment with two grown people and one maid. There was not much company and little entertaining. The meals served, were simple and nutritious; the laundry was sent out with the exception of the knitted underwear, stockings, handkerchiefs and white waists.

EVERY DAY WORK FOR MAID.

Put own bed and room to air. Bring in milk bottles, wipe off same. Empty refrigerator pan. Go over floors of dining room, parlor, library and entrance hall with dust mop. Dust same rooms. Get breakfast, set table, serve breakfast, bring up mail during first course. After breakfast, do up dishes, wash out sink, wipe off stove, sweep kitchen, and wipe up if needed, wipe out fireless cooker, if damp. Make beds, go over bedroom floors and halls with dust mop, dust same. Wipe out bath tub, clean same, if needed; wash bowl, fold towels, empty slops from own room; use mop stick in toilet; wipe floor if soiled; polish door knob, if needed. Get and serve luncheon and dinner, do up dishes; open beds at night.

SPECIAL WORK FOR MAID.

Monday. Over rugs with carpet sweeper; washing knitted underwear, handkerchiefs, and white waists.

Tuesday. Ironing same.

Wednesday. Go over rugs with carpet sweeper; shake doilies, and bureau covers out of window; wash cut glass, and silver on side-board, and rub up silver when tarnished.

Thursday. Wipe off lower sashes of inside of windows and mirrors with dry chamois, dust middle casing of windows; dust all base-boards thoroughly with lamb's wool duster; dust picture frames; polish brass.

Friday. Vacuum clean rugs, one hour and forty-five minutes; scrub up bath-room floor, wipe off tiling, and china of seat.

Saturday. Brush out ovens of stove, clean tray under burners and pipes; wash our refrigerator, cleaning pipe thoroughly with brush, and scald it down; scald butter pail, also bread box; wipe off soiled places on wall or on cupboards, wipe out kitchen drawers if needed; mop up floor. Wash floor dust mop.

Once a month go over underside of rugs with vacuum cleaner, and floor under them with dust mop. Once a month go over top of door and window ledges and picture moldings with long lambs' wool duster. Once in two weeks dust framework of bed springs rest on, and dust backs of bureaus.

How long did it take to do properly the work listed here under *every day work?* A test was made by the mistress of the apartment. Without hurrying she did all the work listed here under every day work in two hours. She also noted the time it took her maid to do it four different mornings, which was a little less than two hours. The maid was unconscious she was being timed. This did not include doing the maid's room. Of course, if the rooms had been cluttered with furniture it would have taken longer to put them in order and dust all the useless furniture and ornaments. The rooms had about ten pieces of furniture each; the halls hardly any. It would also have taken longer had there been more in the family, or had muffins or hot bread been made for breakfast. The breakfasts consisted of fruit, cereal, toast; perhaps bacon, and coffee. Also had the apartment rooms not been arranged compactly with no long halls to traverse; if the beds, instead of being so placed that one could go around them, had had to be moved out to make.

A plan which worked well in a house of about fourteen rooms, besides baths, and lavatories, and seven halls. There were three grown persons in the family; some company; but not much entertaining. There were two

maids; and the coachman cleaned the walks and rugs, and took care of heater; coal for the kitchen and laundry fires.

EVERY DAY WORK FOR HOUSEMAID.

Put own room to air; arrange shades in rooms on first floor; open front door and windows to air first floor; dust ledges of front door and screen door, and sills of windows opening on front porch; polish knobs of front door and screen door when needed to keep them bright; wipe up tiling in vestibule. Dust dining room carefully going over floor around rug with floor mop, dusting all the furniture. Change water on cut flowers, removing wilted ones; set table, properly placing butter, glasses of water and fruit just before announcing breakfast. Serve breakfast, and after eating her own, wash and put away dishes from dining room. Put bedrooms in order, emptying any waste water, and seeing that all bedroom china is properly scalded and free from odor. Beds properly made, floors gone over with dust mop, and rooms dusted. Wash out basins in lavatory and bath, and the tops of the stationary stands; also bath tub. Wipe down front stairs, lower front hall, parlor, and library floors, and dust them. Attend to guest rooms in same way when in use, and keep her own room in good order.

Set table for luncheon, and dinner, and serve same and do dishes from dining room. At night light the front hall, and rooms on first floor.

SPECIAL WORK FOR HOUSEMAID.

Mondays. Clean toilet and bath-rooms, and wash her own clothes, dust doors.

Tuesday. Sweep upstairs porches, and iron own clothes, over rugs with carpet sweeper.

Wednesdays. Clean dining room, sweep down all back stairways, dust baseboards, wash tiling in front of fireplaces; afternoon out.

Thursdays. Clean bedroom No. 3, clean all doorknobs, spigots, fireplace rims, dust doors; next week clean bedroom No. 1, clean silver, dust doors, once in two months wash transoms.

Next week clean bedroom No. 3, all door knobs, spigots, and fireplace rims, dust doors.

Next week clean parlor, wash light globes, and dust fixtures, dust doors.

Fridays. Clean bedroom No. 2, and lavatory, wash windows on second floor, carpet sweeper over rugs.

Next week clean guest rooms, wash windows on 3rd floor, carpet sweeper over rugs.

Next week, clean bedroom No. 2 and lavatory, wash windows on second floor.

Next week clean library and bedroom No. 1, wash windows on first floor, carpet sweeper over rugs.

Saturdays. Clean all front and back halls (6) and own room and butler's pantry, and dust baseboards.

EVERY DAY WORK FOR THE COOK.

Getting the three meals, setting the kitchen table, washing and putting away the dishes from it, keeping the kitchen clean and in order, sweeping the back porch and steps.

THE COOK'S SPECIAL WORK.

Monday. Washing, mopping up laundry, and washing stationary tubs, sprinkle and fold down clothes, wash up kitchen floor.

Tuesday. Sweep basement back stairs and lower basement hall, wash kitchen floor, iron.

Wednesday. Bake bread, wash kitchen floor, finish ironing, clean servant's sitting room.

Thursday. Sweep basement hall and basement stairs, clean closets and drawers, wash kitchen floor, afternoon out.

Friday. Clean servant's bath and toilet, her own room, vegetable cellar, refrigerator, bread box, and wash kitchen floor.

Saturday. Wash up basement hall, sweep laundry and basement stairs, bake bread.

NOTE:—A good washing machine was provided. Where one can send flat work to a good, reliable laundry it is doubtless cheaper and preferable to having it done at home.

A LIST OF ODD THINGS FOR THE COOK TO DO WHILE WAITING, IN ORDER TO SAVE TIME.

Go down to laundry and sort clothes, putting them to soak.

Wash dumb-waiter.

Mould bread.

Clean potatoes for baking.

Prepare bread crumbs.

Remove meat from bones, grind for hash.

Put bones over for soup.

Put beans to soak.

Make cold dessert.

Open clams.

SETTING THE TABLE.

What should be put on under the tablecloth? A silence cloth, either a regular one, or one of canton flannel.

What is the most acceptable kind of tablecloth? One of fine damask linen; it should be put on evenly, with fold in center, and hang over the edges, at least one-quarter of a yard.

How may the number of tablecloths used be lessened? By substituting a lunch cloth for breakfast and luncheon; or supper, if dinner is at noon.

Are doilies advisable in place of a table or lunch cloth? With a nice table they are very attractive, and though they save laundering a cloth, it makes a good deal of

bother putting a number on each time and taking them off, so it is a question whether it is any saving.

Where there is a family of only two or three, and much for one pair of hands to do, what might be substituted at breakfast? Tray cloths at each place.

What is meant by the "cover"? A place at table for each person, and the plate, napkin, glass, knives, forks, and spoons needed for the meal.

At a formal meal where much silver is required, should it all be put on first? Part of it may be put on then and the rest as needed with each course served.

How much space should be allowed for each person? Twenty inches is the least. Place plate for each person one inch from edge of table.

How should the knives be placed? At the right of the plate, with cutting edge next it, and about one-half inch from the edge of the table. Put the one to be used last, next the plate, and so on out.

How should the forks be placed? With tines up at left of plate, one-half inch from edge of table, the last to be used next the plate, and so on out, with the exception of the oyster fork, which is placed at the right of plate beyond the spoons.

How should the spoons be placed? At right of knives, bowls up, in the order they are to be used, working towards the plate.

Where should the napkins be placed? They should be folded and put at left of the forks, or if fresh in center of plate.

Where should the glass be placed? Just above the point of the knife; it should be filled with water to within a little less than an inch of top, and placed just before meal is served.

Where is the bread and butter plate put? At left, just above the forks; the butter spreaders may be placed on these, across edge, also the butter cube or ball.

Where are the salts and peppers placed? In front of each cover, or between each two covers, or at corners of table.

WAITING ON TABLE.

Should a tray be used in waiting on table? Where very large dishes or platters are to be passed it is more convenient to use a folded napkin on the hand without a tray, but for silver or smaller dishes (especially where the hand comes close to the food) the tray is preferable.

What is important in serving? To have hot dishes served hot, and cold ones served cold.

Which side should food be served from? The waitress should always go to left of person with dishes to be served from, and hold dish near the plate, low enough so it can be easily reached. Where individual portions are served, waitress goes to the right of person, and places dish in front of him using right hand to place it.

How should a course be removed from the table? After all have finished take all large dishes containing food from table, then remove plates, with the soiled silver on them; if there are side dishes, they may be placed on the large plate or tray and removed at the same time, but do not pile plates up on the tray.

When should the table be crumbed? Before the dessert is passed, and between courses, if necessary.

What should be used? It is perfectly proper to use a plate and folded napkin.

What should the waitress watch out for? That the glasses are kept filled, that the bread and butter are passed without being asked for, and other things at hand as needed.

What will the efficient waitress always remember? To serve a meal very quietly, not making any noise with the dishes, and to move quietly and quickly, to be neat and clean in person and appearance, hair properly brushed, and finger nails clean.

When should finger bowls be used? Always when fruit is served. At breakfast they may be put on with a little water in them (not ice water) before breakfast is called. If individual portions of fruit are placed at each cover, the finger bowl may be placed at left side just above the

fork; if not place on fruit plate, in front of each cover with doily between. For luncheon or dinner, they are placed before the dessert is served, in front of each person, on a plate with a doily between; each individual removes his own with its doily to the left of his plate. At a very formal dinner, they are placed before the black coffee is served, after the dessert.

When the family is through eating why is it well to press the button twice for the maid instead of once? If she is busy about something, or is eating her own meal, or is not ready for her dessert, she can then wait a few minutes undisturbed before going to the dining room.

If there is no waitress what is of great assistance? A tea cart. Not only in bringing in the dishes and food, and in removing them, but also in changing the courses. Put the salad and dessert, and dishes for them, on top; the soiled plates can be put on lower shelf, without getting up, if the housewife has the tea cart by her side.

SERVING THE COMPANY DINNER.

If dinner cards are used, where should they be placed? On the napkins, but they should be small and simple, just the name of the guest, or they may also have the monogram or initials of the hostess, or a dainty little hand painting.

How should the table be decorated? With a centerpiece, either of embroidery or lace, on which is a low vase or bowl of flowers, and at elaborate dinners a bunch of flowers, or a single flower may be placed at each place.

Are many courses desired at a company dinner? That depends entirely upon the occasion, and the general style of the establishment. It would be in very poor taste to attempt an elaborate dinner without plenty of help to prepare and serve it. A simple dinner, daintily served, and every dish well selected and prepared, served at the proper temperature, and most of all, suited to the income of those entertaining, is vastly more enjoyable than an elaborate one poorly cooked and badly served, or more expensive than one can afford.

Should the small silver or glass dishes with the relishes, bon bons, and salted almonds, be placed on the table? It is proper to place them on the table, or the serving table.

Are butter plates used at a formal dinner? No; as no butter is served at a formal dinner. Each course is supposed to be served with its sauces.

How should a formal dinner be served? Either of two ways. The most formal is to have each course served from the pantry on individual plates, the butler or waitress carries the tray with the portion on it in the left hand and with the right hand places it in front of the person, from the right. It should be placed upon the service plate until after the soup or boullion course, when the service plate is removed with it; after which the dish is set in front of the person, near the edge of the table. If anything is to be served with the course, it is passed at the left side of each guest and held low enough, so he can help himself easily with his right hand.

If one wishes to follow the quite unnecessary way of keeping a plate all the time before the guests, what is the correct way to serve? The waitress goes to the right of the guest, and with her left hand removes the plate, and with her right hand places the following course, or the empty plate. The waitress does not use a tray when serving this way.

In what order should the guests be served? Begin at the right and left alternately of the host and hostess, going in opposite directions.

What are simpler ways of serving? After the plates, knives and forks have been placed, put the course on a tray, after it has been cut in small pieces and carefully arranged, with the necessary serving spoon and fork. (If the dish is too large it may be carried without the tray.) Offer it to each guest going to his left.

How should the course be removed? After every one has finished go to the right of the guest, holding the tray in the left hand; with the right hand take the plate and put it on the tray. If a guest has carelessly left any of

the silver on the table, quietly remove it, putting it on the plate on the tray.

If there are not enough waitresses to wait quickly, dispense with the tray and take a dish in each hand.

When should the coffee be served? If it is to be served at the table, the finger-bowls should be placed in front of each guest, and then the black coffee, in small cups.

At an informal dinner how may the soup be served? By the hostess, from a tureen at the table. The maid places one plate at a time before the hostess; when filled, she places it on the service plate of each guest, going to the right side.

How may the fish and meat courses be served? In the same way, only the host does the carving.

How are all vegetables and sauces served? From the side. They are placed on the side table and passed to the left of each guest.

How is the salad served? The host or hostess may make it at the table if preferred.

How should the dessert be served? By the hostess, the maid passing it.

How is the coffee served? The hostess may pour it or it may be brought in, in little cups. It is placed at the lower right hand of the guest, and sugar and cream passed to his left.

How should a company dinner be served when there is to be only the maid of all work? The table should be set as for the formal dinner, but the service plate should be omitted; all the knives, forks and spoons needed put on the table. Also salts and peppers at the corners of the table or one of each for every two persons.

What else should be put on before dinner is announced? A bread and butter plate at the left of each place with a butter ball, and bread or roll, and if butter knives are used, a small one on each plate; glasses should be filled with ice water to within about an inch of top, and everything be on the serving table. Three or four plates are placed at a time before the host or hostess; the maid places one as filled on the tray, and with the right hand,

standing at the right side of the guest, places it before him.

How is the formal luncheon served? Like the formal dinner except that with a very handsome table, doilies and a centerpiece may be used instead of the cloth. But the cloth can be used, if preferred.

How is the soup served at a luncheon? In boullion cups.

Is the heavy roast omitted at luncheon? Yes; and very few vegetables are served.

How are the salad, dessert and coffee served? Usually from the side, but the hostess may serve them if she wishes.

What is the difference between the informal dinner and the informal luncheon? No roasts are served at the informal luncheon, and if the hostess wishes, she serves tea from a teapot arranged with the cups and saucers, sugar and cream on a tray with a cloth under them; or omitting the tray she uses the tray cloth only.

WHY NOT USE ALCOHOLIC LIQUORS IN COOKING?

Is there any reason why it is dangerous or unwise to use alcoholic liquors in cooking? A brandied peach, or food or sauce flavored with rum or wine have not enough alcohol in to do injury; but their use may create (and has created) a liking for alcoholic beverages which is distinctly harmful. One not accustomed to liquors in cooking, does not miss them; why then create the desire? If one has formed the taste, all the more reason why it may be perilous to gratify it.

Why is there any objection to serving wines or champagne at dinners or luncheons? Modern science has discovered that alcohol is a narcotic poison, and a habit-forming drug. That the amount in even two glasses of beer is sufficient to reduce efficiency for eight hours or more. Its continued use in large quantities causes liver cirrhosis, heart and kidney diseases, hardening of the

blood vessels, gout, and nervous troubles. One glass of champagne, or one cocktail, has caused many an adolescent girl to take her first side step from the path of virtue, for it inflames the baser passions, and at the same time puts to sleep temporarily the nerves of moral sense. Alcohol destroys the white corpuscles of the blood which protects us from disease, thus predisposing one to tuberculosis and other contagious diseases. Therefore, it would seem that any woman of really high ideals and a fine moral sense would not be willing to place before her guests, or stamp with her approval in any way, anything that produces such disastrous results. If patriotism in time of war calls for the banishing of alcoholic drinks, why should not love for one's friends call for the banishing of alcoholic drinks from the table? Are you willing to assume the responsibility of putting this temptation before your guests?

HOUSEHOLD ACCOUNTS.

Is it worth while to keep household accounts? It is; and with the Economy Expense book, it is not a difficult matter if attended to regularly. There are two columns at the left, one to enter the amounts received, the other what is paid out; and a space beyond, to post the expenditures under the different heads, so one can easily tell if the account balances, and at the end of the month the amount spent under different groups.

What help is this? It enables one to see how the income is being spent, and where it would be wise to cut out any needless or unduly large expenditure.

What practice should one especially avoid? Going in debt; it is demoralizing and leads one into expenditures she cannot afford. It does not matter so much what one's income is, as whether one lives within it, saving up a little for "a rainy day." Debt is like a millstone about one's neck, and has many times dragged a man down to suicide. One should gauge her expenditures by her income and not by the income of a neighbor, and heroically go without what cannot be afforded.

LAUNDRY WORK.

What makes water hard? It is the compounds of lime or magnesia it has taken up from the soil.

How may this sometimes be corrected? By boiling, if it is calcium carbonate (carbonate of lime) or by putting a little sal soda, borax or ammonia in.

Can clothes be washed well in hard water? No; they cannot be washed well, and it takes very much more soap.

Will soap act on the dirt as long as there is lime in the water? No; it will unite with the lime and form lime soap.

How can this lime soap be removed from the tubs and boiler? It is insoluble in water, but can be readily wiped off with a cloth dampened with coal oil.

Is it advisable to soak clothes before washing? It helps to loosen the dirt. They should be put in cold or lukewarm water, and soap rubbed on the parts badly soiled, rolling them up to get the full benefit of the soap.

Should the water be softened first? Yes; with a little washing soda solution.

Should washing soda be put in the water after the clothes have been put in? Never! Always dissolve it thoroughly in the tub of water first; about two ounces to a large tub of water.

What should be done next? Wring out the clothes; then wash them clean in hot soap suds, and then scald. They are more sanitary if boiled about ten minutes, instead of having scalding water poured over them.

What will help in whitening the clothes? If a tablespoonful of borax to each gallon of water is put in the boiler before putting them in to boil.

Is there any other advantage in the borax? It acts as a disinfectant.

Why do the clothes need to be thoroughly rinsed? Otherwise the dirty water will not be removed, and the soap will also make them look yellow.

Should the clothes be thoroughly wrung between each change of water? Yes; or so much soiled water will be

left in them it will take several rinsings to remove it.

Why do clothes that have been blued look whiter? A blue white always seems whiter to the eye than a yellow white.

What will help in washing greasy clothing or dish towels? A tablespoonful of coal oil to about a gallon of water, will cut the grease; they must be thoroughly boiled afterwards with plenty of soap, and very thoroughly rinsed, and hung in the open air.

Why should stains be removed before clothes are put in hot soap suds or soda water? Because hot water, soda and soap set many stains.

Why does linen shrink more than cotton? Because it has little notches or joints along its walls, but these little teeth are not so long as on wool fiber.

Do alkalies, like washing soda, borax and ammonia, have much effect on cotton? Not very much, but they should be rinsed out thoroughly, especially washing soda, for when the cloth dries the absence of water makes the remaining amount of soda full strength, and it will act for some time on the cloth.

Why will clothes dry quicker in a draft? Air will only absorb a certain amount of moisture, and that next the clothes becomes saturated and cannot take up any more moisture; but dry air blowing against them continues to absorb the moisture.

WASHING WOOLENS.

Why do woolen garments shrink more in washing than any other kind? The wool fibers are marked by crosswise divisions with little teeth-like projections, which become knotted together when the garment is rubbed; hot water and strong alkalies also make them curl up and tangle together.

Why does wool shrink less if cotton or some other material is mixed with it? Because there are less of these little teeth to get tangled up.

Should alkalies be used in washing woolens? No; for they have a hardening effect on them. Just enough to soften the water may be used.

What special care must be used in washing woolen goods? The different waters used should be of the same temperature, never hotter than the hand can bear comfortably, and they should not be allowed to soak, but be washed and dried quickly.

Should soap be rubbed on the wool? No; be sure to dissolve it, and use in liquid form; white soap only should be used.

What is best to do before putting woolens in the water? To shake or brush them first because the little tooth-like projections catch so much dust, and on the inside the particles of skin that are constantly being thrown off become lodged in them.

Should woolens be rubbed? No; they should be squeezed, and soused up and down and they should not be wrung by hand but through a wringer.

Should woolens be allowed to freeze in drying? No; the little teeth will become knotted and hard.

What is a good way to dry them? After putting through the wringer, roll up tightly in a dry towel or sheet, squeezing them until all the moisture is absorbed.

WASHING COLORED CLOTHES.

Should colored clothes be soaked? No.

What kind of soap should be used? Only a white soap free from alkali, and it should never be rubbed on, but dissolved in the water.

How should they be hung out? Wrong side out, and in the shade, for the direct sunshine on them will fade them about twenty times as quickly.

STARCHED CLOTHES.

Will clothes stay clean longer if starched? They will.

How should cooked starch be made? Moisten the starch thoroughly in a little water and then the right amount of boiling water can be poured over it, stirring it rapidly, then cook until it is clear.

Will starch stick worse if it is lumpy and if not thoroughly cooked? It will.

How can anything be starched very stiff, like shirt fronts? Have the goods dry so as not to thin the starch which must be thick, and rub and work it in with the hands spatting it thoroughly.

MERELY A SUGGESTION OF STARCH.

1 tablespoonful of starch.
2 tablespoonfuls of cold water.
2 quarts of boiling water.

This is right for table linen if one wishes just a suggestion of starch to help keep it fresh looking longer than when no starch is used.

VERY STIFF STARCH FOR SHIRT BOSOMS, COLLARS AND CUFFS.

1 tablespoonful of starch.
2 tablespoonfuls of cold water.
1 gill of boiling water.

If they are to be wet afterwards in cold starch use one-half pint of boiling water. For dresses and articles wanted fairly stiff use one pint of boiling water.

RAW STARCH.

1 tablespoonful of starch.
½ pint of cold water.
¼ teaspoonful of borax.
A few drops of turpentine.

Do not increase the amount of borax and turpentine or they will injure the cloth, but they give whiteness and gloss to starched linen. Cold starch settles very quickly, so it must be stirred every few minutes. Let what is left settle, pour off the water, and use next time for making hot starch.

What is very important in starching? To pat the starch in thoroughly and evenly.

IRONING.

In ironing, what is necessary? To have the clothes evenly dampened, no dry spots in them or they will not look well; they must be damp enough, but not too wet, or the iron will cool too quickly.

Is it better to sprinkle clothes the night before, and fold down carefully, rolling them tightly? It is. Then spread a damp cloth over them.

Does cold starch need a hot iron in ironing? Yes; or the starch will not be well cooked and will not stiffen much.

Should table linen be starched? No; it should be ironed while quite damp all over. If the cloth is very old and thin, it may be dipped in just the least suggestion of starch, to give it the body of good linen.

Will a table look well if the cloth is badly ironed, or mussed? No; it is worth special effort to have the cloth clean and well ironed, for it gives a feeling of cheerfulness and comfort to sit down to an attractive table.

REMOVING SPOTS.

In removing spots from clothing how is the best way? To have a thick pad of cloth underneath, so that the cleaning fluid or water will be absorbed, taking the grease or soil with it.

How can a soiled yoke and collar of lace be cleaned? By putting it over a pad, this way, and rubbing with gasoline, or white soap and water, or borax and water.

Is there danger in using gasoline? It is very dangerous if there is a flame or fire in the room; in fact the vapor from it may go from one room into the next, if the door is open, and cause a fearful explosion if there is a candle, lamp or gas jet lighted, or a fire in the stove, if it has a lid off, or damper open over the fire.

What precaution should one take in using gasoline? It is best to use it out of doors, if possible, if not, have the window open, to let the fumes escape, and make sure there is no open flame anywhere, or that any one carries a light or strikes a match there until the fumes have disappeared.

How may fresh coffee, tea and fruit stains be removed? By stretching the stain over a dish and pouring boiling water through it.

Should these stains be allowed to dry in, in table linen? No; wash them out at once.

How can vaseline stains be removed? Always soak in kerosene before using water or soap.

What can be used to remove paint? Turpentine.

What for varnish or pitch? Turpentine, alcohol is also good to remove it.

How may ink stains sometimes be removed? Wash in a little skimmed milk before they dry. If they can be left in until the milk sours if the stain is an old one, it will sometimes help.

What else can be used? Moisten the stain with lemon juice, and cover with salt and put in the sun. Wash out thoroughly.

How can blood stains be removed? Soak in cold water, wash thoroughly, then use hot water and soap.

SOAP MAKING.

How can soap for kitchen use be made easily? Carefully and slowly add a can of potash to three pints of cold water; it will boil and spatter when it touches the cold water, so care is necessary. When cool, pour it slowly over five pounds of clean fat that has been saved in the kitchen, melted, and strained through cheese cloth to remove all specks of brown. Stir with a stick until they are thoroughly mixed and about as thick as honey. Do not stir too long as they may separate.

How can it be molded? Line a wooden box with several thicknesses of wrapping paper, oiling the last one. It will harden in a moderately warm place; then cut into cakes. It is good for scrubbing and coarse work.

WASHING FLUID.

1 lb. of good potash	½ oz. salts of tartar
½ oz. salts of ammonia	1 gallon of water

Add the potash very carefully to the water, as it will bubble up and run over unless put in slowly, then add the other ingredients, mix thoroughly and when cool put in bottles tightly corked.

In using soak the clothes in cold water, wring out and put over to boil in cold water to which has been added ½ cup of the fluid to 3 pails of cold water. Mix this thoroughly before putting in the clothes, never add any fluid after the clothes have been put in the water.

After boiling suds and rinse thoroughly, then blue, and hang out. If these directions are followed carefully the clothes will wash very easily, will wear better than when rubbed in the old way, and will keep beautifully white.

HOW MUCH SHOULD BE SPENT ON THE TABLE.

Those who have made a careful study of actual cases tell us that the proportion of the income spent for food, decreases as the income increases.

Why is this? Persons must have a certain amount of food to sustain life and strength. If a family has but $300 to live on it is evident that a much larger portion, or percentage of it will have to go for food (to the exclusion of all the comforts of life) than in a family that has an income of $3,000. About 60% or 6/10 in the first case, and about 25% or ¼ in the second.

How small an expenditure for raw food could one live, or exist on? It is estimated eight to ten cents a day would keep one alive. This means only the very cheapest food.

How much would allow a limited amount of fresh vegetables and fruits in season, coffee, tea, some milk and quite a variety of food? From twenty-five to thirty cents per person.

How much for raw food would give an excellent table, but not strawberries in January, or game and luxuries of that kind? Fifty cents per day a person.

Can the same food be served cheaper in a large institution than in the family? Yes; for one can buy much cheaper in very large quantities, and the service is less.

What increases very much the cost of food for the table? The preparation of it, the service required, and the fuel. The fuel may be lessened by using a fireless cooker, utilizing the oven for baking beans, etc., when ironing if coal is used.

Name three things that unnecessarily increase the cost of food? Buying that which is out of season, when the price is very excessive; buying more than is needed, and wasting food through poor cooking.

Does serving a family dinner in four courses, instead of three, increase the cost? It requires more service, and time has a real value.

What is true economy? Spending money or time in such a way as to get the largest real return from it.

PURE FOODS.

What special knowledge is required in buying groceries, etc.? A knowledge of which are pure and which are adulterated.

Are the substances used in adulterating food always harmful? Sometimes the preservatives are; especially if one is not very robust, or with children, and invalids. But even if the substance with which food is adulterated is not harmful, why should we pay the price of a pure food when a cheap substitute has been added to increase the profit of the manufacturer. It is simply throwing money away.

How can the housewife guard against buying adulterated food? Dr. Harvey W. Wiley's "1001 tests of foods, beverages, and toilet accessories" can be bought for $1.25, and is an invaluable guide to the purchaser, for he shows up with a fearless hand the adulterated, misbranded articles, and gives the names of those brands it is safe to buy. He has rendered the housewife an invaluable service in this book.

BALANCED RATIONS, OR FOOD VALUES.

Is it necessary to figure out the proportion of food values for each person? No; most foods have minute quantities of the five different food substances, including water, so that by selecting something from each of the following divisions for each meal, one will get a fairly balanced ration.

Protein.	*Fat.*	*Carbohydrates.*	*Mineral Content.*
Meat	Butter	Sugar	Green vegetables
Fish	Cream	Starch	Fruits
Eggs	Bacon	Bread	Whole wheat
Milk		Cereals	
Cheese		Tapioca	
Legumes		Dried Fruits	
Nuts		Rice	
		Potatoes	
		Macaroni	
		Hominy	

Eggs, milk also have much mineral content, and cheese, nuts and fat meat much fat.

Which one of these classes of food does the body use for growth and repair? The proteins.

What purpose do the carbohydrates and fats serve in the body? They both produce heat and energy—or the power to work. This work is two kinds, internal and external.

What is the internal work? Performing the regular functions of the body itself, breathing, digesting, circulation of the blood, elimination of waste products, thinking or brain work.

In furnishing heat for the body, which goes the furthest, fat or carbohydrate? Fat produces twice as much heat.

When one eats much fatty food does he require more fresh air? Yes; for he needs the oxygen, to help in digesting it as it contains less oxygen than starch and sugar. That is one reason a person working out of doors can eat pork, pie and fried cakes, when a person of sedentary habits cannot.

How does the body use the mineral matter found in green vegetables and fruits, and in eggs and milk? They are used in the teeth, bones and nails.

How does the body use fat? Considerable fat is stored in the body as a reserve fund; but its principal office is to keep the body's machinery going.

Would bean soup, roast beef, potato souffle, egg salad, and plum pudding be a well balanced menu? No; it contains entirely too much protein.

Should bean soup or egg salad be used with a heavy meat? No.

Would potato soup, fish, baked potatoes, macaroni, and rice pudding make a well balanced menu? No; there are too many carbohydrates.

What two foods should be generously provided? Vegetables and fruits.

Why? They are necessary brooms for the human body to keep it swept clean of refuse matter which would clog up the system.

Are fresh fruits and vegetables preferable? Yes; if the price is not too high; then substitute dried, evaporated, or canned ones.

Can one judge of the nutritive value of food by its price? Not at all. The scarcity of a food increases its price. Fruits and vegetables out of season cost several times more.

What is the comparative amount of nourishment in cheese and meat? There is twice as much nourishment in a pound of cheese.

Is milk an economical food? It is, although it is mainly water it contains all the five fundamental types of food material.

Name seven kinds of foods one pound of which would have nearly the same amount of nourishment . Macaroni, bread, corn meal, dried peas, dried beans, rice, or white flour.

Is there as much nourishment in a quart of milk as in a quart of oysters? Yes; it has been proved by the Agricultural Department.

Is there much water in meat? The flesh of the larger animals will average about two-thirds water.

How does the amount of protein in a pound of lean meat compare with the amount in a pound of milk? There is about five time as much in the meat. But remember you must take the bone and fat all out first, then reckon what your pound of lean meat cost, and compare it with the cost of your pint or pound of milk, remembering there is five times more protein to the pound of lean meat, but even so, you may be surprised at the comparative cost of protein in the milk, and realize that it may better be substituted in liberal amount instead of too much meat.

Is the meat from young animals as nutritious as that from older animals, or in other words is lamb as nutriti-

ous as mutton, or veal as nutritious as beef? Meat from young animals is not as nutritious, does not keep as well, but is more tender.

Is there more nourishment in the expensive cuts of meat? There is not as much nourishment, but they are more tender, so are more easily and quickly cooked.

Are all scientists agreed on the amount of protein a person requires? No; there is great diversity of opinion. Voit, after very careful experiment some years ago was firm in his belief that an adult weighing 150 pounds, should have 118 grams of protein a day. His statements were published in 1881. This was the generally accepted theory, and as people in comfortable circumstances were accustomed to about that amount from choice, without any scientific reason, it was very acceptable.

Are there any later scientists who contend that less protein is required? Yes; five or more. (Hirschfeld, Klempirer, Pechsel, Siven and Chittenden.)

What amount do they claim necessary? For a man of average size 40 grams or less; this is less than one-third Voit insisted on.

Have enough extended investigations been made to really establish without doubt the amount of protein one's diet should contain that he may reach the highest point in efficiency. No; there have not. Many persons are greatly benefited by cutting down the amount of meat they are accustomed to eating.

To what has the human body been compared? To an engine. The food being likened to the coal; the refuse matter to the ashes, the air taken in through the lungs to the draft, and the waste matter expelled through the lungs and skin might be lightened to the smoke and gases through the chimney.

When food is burned in the body why do we not have any light from it as with the coal in the stove? Because the combustion in the body is much slower. Combustion or oxidation takes place in every tissue of the body, not in one central place like in the stove, and doubtless the

food first becomes a part of body tissues before it is burned, or oxidation takes place.

Does a person's size have anything to do with the amount of food he needs? Yes; it takes more heat to keep a tall, large, person warm than a short, small one; also it requires more material to keep a large body in repair than a small one.

Does this apply to children? No; for they use up a tremendous amount of energy in constant motion, and they need a large amount of material for both growth and repair.

What kinds of food do they especially need? Proteids, for growth and repair, and carbohydrates and fats for warmth and energy, and mineral salts for the bones and teeth. They must have fruits and vegetables to keep the system clear of refuse, so it will not become clogged.

Does the amount of food affect the mental powers of a child? Very much; underfed children are often backward in school, and when supplied with a nutritious luncheon, the improvement is so marked, it is now being regarded as very poor economy on the part of the Government to provide schools for underfed children without providing them with additional food.

Do young children require a special diet? They most certainly do. They should never be given tea, coffee, fresh bread, griddle cakes, fried potatoes, fried cakes, fried meat and eggs, pie, cake, pickles of any kind, turnips, cabbage, or cheese—not even a little taste of these things. Even older children should not have many of these foods.

Will it handicap them later in life if they are not fed properly in childhood? It will. Improper feeding may result in obstinate indigestion which will prevent them from ever becoming as efficient either mentally, physically or morally, as they might have been, if properly fed in infancy and childhood.

What other neglect may hamper them all their lives? Not taking proper care of their teeth.

Why is this? Food cannot be digested properly unless it is thoroughly masticated, and it cannot be thoroughly masticated unless one has good teeth. A child's teeth are worth thousands of dollars to him, and parents are neglecting their duty shamefully, if they do not see that each child has his own brush and that his teeth are brushed every night and morning.

Do elderly people need as much food as those in middle life? No; none is needed for growth, and little for repair if they are inactive.

Should proteids be reduced in their diet? They should, and if they are inactive very much reduced.

PLANNING MEALS.

What should one avoid in planning meals? Getting into a rut and having the same kinds of food day after day.

Is it a good way to have a certain menu made up for each day of the week, and use it week in and week out? No; even having a certain kind of meat for every day in the week, is a poor plan.

Is it not well to select favorite dishes to the exclusion of those less liked? No; for they will no longer please, if they appear too often on the table.

Should there be a great variety of food at one meal? No; it is better for the digestion not to have too much of a mixture. A light dessert should follow a hearty meat course. With a heavy dessert serve a lighter meat course.

Is it worth while to save a tablespoonful of different kinds of vegetables left over? It is; nothing should ever be wasted. Put the various bits of vegetables, a little steak bone, or bone from the roast, the little pieces of bread or toast, and a little gravy left over into a stew pan and let it simmer for an hour, or put in the fireless cooker, rub through a sieve; boil up, adding a little butter, if there was not enough gravy or meat bone to flavor, add a little paprica, or kitchen bouquet, and you will have a nice soup.

How can gravy left over, be used? Add to a can of tomatoes, cook half an hour, strain, add paprica, and salt and serve with toasted bread.

How can small quantities of rice, macaroni or potato be used? Mix with a little chopped meat or fish, moisten with gravy or milk, put in shells or ramekins, with bread crumbs over, bake until brown on top.

How can left over soft boiled eggs be used? Put in boiling water, remove from stove, let stand until hard, then use as a garnish for spinach, lettuce, etc., or press through a sieve and add to a white sauce.

What should the housekeeper always have on hand? A reserve store of canned goods, to fall back on, when supplies run short. This saves a troublesome trip to the store or market at the last moment.

Should a few cans of evaporated milk be included? It will often help out to great advantage.

What should be done with small dry pieces of bread? They may be toasted and cut into little squares for soup, or they may be kept in a clean muslin bag, until thoroughly dry and crisp (they may be dried out in the oven) then crush and roll into fine crumbs, and put in glass cans ready for scalloping, crumbing, or using in various ways.

What may well be substituted for meat at luncheon, or at supper? Bean soup, or a cream soup made with milk and peas or potatoes, etc., or a cheese souffle, or macaroni with cream and cheese dressing, or baked beans, or lentils, or egg salad (the eggs must be cooked below the boiling point) or scrambled eggs, or cheese sandwiches, or graham sandwiches with nut filling or nut bread, or graham muffins with cocoa.

DESSERTS WITHOUT MILK.

Fresh fruits.
Stewed
- Prunes.
- Peaches.
- Apricots.
- Figs.

Baked apples.
Dates and crackers.
Orange jelly.
Apple tapioca pudding.
Brown Betty.
Gingerbread.
Carrot plum pudding.
Boiled rice with hard sauce.
Coffee jelly with cream.
Rolled griddle cakes with lemon sauce.
Graham crackers with hot cocoa.
Crackers and cheese.
Nuts and raisins.

DESSERTS WITH MILK.

Boiled custard.
Baked custard.
Floating island.
Baked chocolate custard.
Baked coffee custard.
Tapioca float.
Snow pudding.
Rice custard pudding (baked).
Rice pudding without eggs.
Bread pudding.
Delmonico pudding.
Cereal pudding.
Baked Indian meal pudding.
Steamed Graham pudding.
Spiced pudding.
Tapioca pudding.
Cottage pudding, hard, vanilla, chocolate or jam sauce.
Dropped cookies.

Junket
- Vanilla.
- Coffee.
- Ginger.

Frozen
- Vanilla ice cream.
- Strawberry ice cream.
- Peach ice cream.
- Lemon sherbet.
- Coffee mousse.

HINTS ON MARKETING.

In marketing, what is a great saving of time and annoyance? Going early, as one can be waited on much more promptly. This saves a good deal of time if purchases are made at several places. It is most annoying to have to wait for the delivery of marketing, and as one should allow a reasonable length of time for delivery, it is a great help to go to market early.

MEATS.

From what part of the animal are the tenderest cuts of meat? From the middle of the back, as this is the part least exercised.

Which are the toughest, cheapest pieces? Those from the parts exercised the most. The legs, especially the front ones, and the neck and shoulders.

What general rule prevails? The cuts decrease in price from the center of the back both back and front and downward.

How should good beef look? It should be dark red when first cut, and grow brighter after exposure to the air a short time. The fat should be yellowish white.

What should be the color of the fat of mutton and lamb? It should be white and firm, the lamb meat pink.

Is there much water in meat? The flesh of the larger animals is two-thirds water.

Does the fore-quarter or shoulder have more bone than the hind-quarter or leg? Yes; always, this increases somewhat the lower cost of the fore-shoulder.

Should there be a strong odor to meat when in good condition? No.

Is meat better if well marbled with fat? Yes.

What can the neck be used for? For mince meat, and broth.

What part is used for soup meat? The shin; it is divided into three pieces; the most meat is on the upper part,

but the lower bone is very rich in gelatin, and should not be thrown away.

Which is the highest priced steak? The tenderloin, because it is the tenderest, but it has not so much nourishment as the round.

What is a filet of beef? It is the entire tenderloin, and is very expensive.

Are both sides of a round steak equally tender? No; the outside or bottom round as it is called (the side next the skin) is the toughest and cheapest. Those muscles are exercised more than those on the inside of the leg.

Which of the organs of an animal are used for food? The liver, sweetbreads, kidneys, heart, and in beef, the lining of the stomach.

What special precaution is necessary in selecting the kidneys and liver? These two organs, as their use is to remove the impurities of the blood, are very liable to be diseased, so if they are spotted or streaked, they should never be used. Calves' liver is more expensive than beef, but it is perhaps less liable to be diseased, and is much more tender.

POULTRY.

What kind of poultry is most expensive to buy? Very young poultry, not only because the price is more per pound, but the proportion of waste in head, feet and bones to the amount of meat is greater than in older chickens.

Which contains the greater amount of meat compared to the waste, a three pound fowl or a five pound? The five pound, because the head, feet and bones will weigh about the same in the two fowls.

What are some of the marks to distinguish a young fowl? There are usually pin-feathers, less fat, and the feet are smoother. The tip of the breast bone is not so hard.

If a fowl has long hairs is it an indication of age? Yes.

Are dry picked fowls better than those scalded first? Yes; very much.

FISH.

What are indications of freshness in fish? Full life-like eyes, firm flesh, red gills, stiff tail, not flabby.

Is a plump, short fish better than a long, slim one of the same kind? Yes.

Are fish that are just caught preferable to those that have been out of the water for some time? Very much.

Is there as much nourishment in fish as in meat? No; but it may well be substituted for it frequently.

Is under-cooked fish wholesome and palatable? No; it should be thoroughly cooked, but not overdone.

Why are mackerel, salmon, blue fish and shad more difficult to digest than other kinds of fish? Because the oil is distributed through the flesh instead of in the liver.

Is halibut really as much more expensive than small fish as the price per pound would indicate? No; for being a very large fish, one does not get the head or tail, and there is very little waste.

What special precaution is necessary in buying oysters, clams and lobsters? To make sure they are perfectly fresh, and that the oysters have not been fattened in a stream where the water is polluted.

Is there danger from eating raw oysters? Many cases of typhoid fever have resulted from it, when they were taken from water polluted with sewage.

VEGETABLES.

In buying vegetables, are those desirable that are wilted and stale? No; there is no economy in buying food that has to be thrown away because unfit for use.

What size is desirable in vegetables? A medium size, for if too small there is too much waste in parings, etc., and if too large they are apt to be coarse fibered, and tasteless.

Which kind of winter squash is best? The green Hubbard squash, and it should be good sized and hard.

What are the best varieties of corn? Evergreen and Country Gentleman.

Of peas? Telephone and marrowfat.

What is necessary with both corn and peas? That they be cooked as soon as possible after picking, as they lose their sweetness very quickly after being gathered.

EGGS.

How can one determine if eggs are fresh? Learn how to candle them, the outfit is inexpensive.

How can one secure fresh eggs in winter at lower price? If there is a cool place to keep them buy perfectly fresh eggs in May or early June; unfertilized ones keep better. Put down in water glass (state it is for putting down eggs) exactly as directed by the Agricultural Department, Washington, D. C. (pamphlet free) and you will have good eggs the following winter, natural flavor, and no taste of water glass.

DRY GROCERIES.

Is it advisable to buy groceries in large quantities? If the family is large, and if there is a suitable place to store them, there is a very decided saving in buying 100 pounds of sugar; flour by the barrel; canned goods by the dozen or case; and fruits by the box or bushel.

What precaution must be taken with perishable supplies? To look them over often, and remove all decaying ones as they will quickly make those next decay also. The loss may more than overbalance the higher cost in small quantity.

How is a good way to buy oatmeal, cracked wheat, hulled wheat, corn meal, graham flour? By parcel post direct from some good, reliable mill; this will save several cents a pound on some kinds. They can be gotten this way prepared by the old water ground system. Whole wheat berries can be bought this way. Soaked eight hours, then cooked half an hour and put in fireless cooker with hot stone and left over night it makes a delicious breakfast food.

Should one eat polished rice? No; it has had the most valuable part removed. In the Philippines it was found that the prisoners thrived on the unpolished, while sickness resulted when put on a diet of polished rice.

Is rice artificially coated sometimes? It is, with a preparation of chalk and paraffin. By buying the unpolished, one avoids this adulteration.

What may be substituted for olive oil? Peanut oil. If it is thoroughly refined, it has absolutely no taste; is more easily digested than olive oil, and much cheaper, costing only about $1.00 for half a gallon, and it is as nutritious. It makes very nice salad dressing.

What kind of flour is most nutritious? Whole wheat flour, not entire wheat flour, which is a trade-mark and is not made of the whole wheat.

How many will one pound of good coffee serve? It will make thirty full cups of strong coffee.

How long should one pound of coffee last? It should last one person a month, or four a week. Allowing one cup a day per person.

How much butter should one person eat at the table where cream is used? One ounce, or two level tablespoons a day, or half a pound a week to each person.

How much should be allowed per person including that for cooking? About one pound.

What may be substituted for shortening? Carefully prepared drippings, always without any bacon or sausage fat, also uncolored butterine, or crisco or snowdrift.

THE KITCHEN FIRE.

What is one of the most important things in cooking? To have the fire right.

Is a hard coal fire difficult to manage? Not if one knows how and takes the right care of it.

What should be done first in building a coal fire? All the ashes and coal should be cleaned out of the firebox; then the ash pan should be emptied.

Why need the ash pan be emptied? Because the ashes will absorb part of the heat as well as prevent a free circulation of air which is necessary if the fire is to burn well.

How should the fuel be put in? Twist up some pieces of paper lightly; put in the bottom of the grate; lay some pieces of kindling wood lightly on this, crossing each other so the air can pass through easily; on top of this a layer of hardwood cut in rather small sticks; put on the covers, open the dampers, and light the paper. In two or three minutes, when the wood has begun to burn, sprinkle on lightly a thin layer of coal; when this is burning well fill the firebox with coal to within two inches of its top.

Why not fill it full clear up to the covers? Because it wastes the coal; and it heats the top of the stove so that it warps and destroys it.

But will it not make the oven hotter to have the stove crowded full of coal and the lids red hot? No, it will not; the air has no chance then to pass over the hot coals and around the oven, which is necessary if the oven is to be heated well.

What four things are apt to make the oven bake badly? Not keeping the layer of ashes, which will settle on the top of the oven, cleaned out, and also those that settle under the oven, and allowing pieces of coal to lodge on the top of the oven just above the firebox, so the current of hot air is prevented from circulating around the oven; also allowing the ashes to fill the ash pan when one is baking, as they will absorb much of the heat.

As soon as one finishes using the fire what should be done? Coal should be put on and all of the dampers closed, and the check which allows the cold air to pass in over the coal should be opened.

Will the fire burn much if left this way? No, it can be kept for a long time, and when wanted, if the ashes are raked out, the dampers opened, and the check closed, the fire will burn briskly in a few minutes.

Will it make less work to care for the fire if it is kept turned off in this way when not in use? It will; for it not only will save the coal but there will be that much less coal to bring up and put on the fire, and less ashes to rake out and empty; so it pays in the amount of labor as well as in coal saved, and the oven does not clog up with ashes so soon, and there are less ashes to settle through the house in handling.

Where must the cold air in a stove enter in order to make the fire burn? Always below the firebox, and flow up though the fire.

Where must it enter to check the fire from burning? Above the firebox, so it will pass over the fire, and not through it.

Should the coal burn to a white heat? No, never.

Why not? It exhausts the coal before it does its work. The fire will be burned too low before fresh coal is put on and the drafts will have to be opened and the fire started vigorously, to prevent it from going out. Or, if fresh coal is put on as soon as it reaches white heat, it will start up vigorously at once, even if it is all closed. Therefore, it is a waste of coal, time, and strength ever to allow a fire, whether it be in the kitchen range or a house furnace, to burn to a white heat.

What is the mistake that is often made in caring either for a coal range or a furnace fire? It is in allowing the fire to burn to a white heat before putting on fresh coal.

If this happens with the furnace fire what should be done? A good supply of coal should be put on, and then a thin layer of pea coal; or the fresh coal will in turn burn up to a white heat very quickly, the house will be over-heated, and after a short time the fire will burn out, and have to be started again.

Is this an extravagant way to run a fire? It is; for it takes more coal, makes more work, and the heating is never satisfactory.

What is one of the best things to do when the top of the range is soiled? Take a piece of newspaper and wipe it thoroughly.

Which damper should always be kept closed, except when starting the fire or when it is low? The one which carries the smoke and heat from the stove into the pipe.

Can the oven be heated when this damper is open? No, it cannot, as all the heat passes up the chimney and is wasted.

What causes clinkers in the stove? Allowing the coal to burn to a white heat.

How can they be gotten rid of? When the fire is red hot put on some oyster or clam shells, or, if they cannot be obtained, put a little quick lime on the fire.

Will there ever be clinkers if the fire is rightly cared for? No, there will not.

Is it cheaper to start up the coal range when preparing one or two hot dishes for supper or luncheon, if they are quickly cooked? No, it is cheaper to use the gas or oil stove.

THE GAS RANGE.

In using gas to cook with, what mistake is most often made? Using too much gas and so having too hot a fire.

How can this be prevented? By using the small burners as much as possible, turning the gas partly down so the food will cook more slowly, and only lighting the oven about ten minutes before time to use. After putting the food in, turn the burners partly down; the back one may sometimes be turned out entirely.

In what other way can the gas be saved? By using both the upper and lower oven at the same time.

How can this be done? Bake the potatoes above while the steak is broiling below or while custards or puddings that require a moderate oven are baking above; bring the potatoes to a boil on top of the stove, then put them in the lower oven to finish boiling.

How may the cost of gas be reduced in cooking besides using the fireless cooker? Do not light gas until ready to put the food directly over. In heating water put over about the amount wanted; to heat more is a waste of gas.

Is it a saving of gas to use a little portable oven instead of the large one on the gas range? Yes, it takes much less gas.

THE FIRELESS COOKER.

Name some of the advantages of a fireless cooker. Cost of fuel reduced, especially if gas, or oil is used in cooking; the pots are easier to wash, they last longer, there are less odors in the house, and time and labor are saved, and there is less heat in the kitchen in summer.

What foods are best adapted to fireless cooking? The cereals, dried beans, peas, lentils, hominy, string beans, beets, soup bones, boiled ham; and meats can be successfully roasted in them.

Is it advisable with meats to leave them in a long time after the heat has fallen to blood heat? No; the meat deteriorates as it would at that temperature in the room. But it may be left over night with a good cooker, for it will still be hot.

First Aid in Good Cooking

What is the first aid in good cooking? To have the right amount of heat for the kind of food to be cooked, and to cook it the proper length of time. Eggs cook below the boiling point, and should never be actually boiled. They may be heated to the boiling point, but taken off the stove just as soon as the water reaches boiling. Or they may be put in boiling water, and left to stand until cooked. Scrambled eggs, custards, and custard puddings are very superior, if cooked at very slow heat. Cook in a dish of hot water, first placing a piece of paper in the water under the dish. The moisture reduces the heat. Oysters also require very slow cooking, and should not be cooked too much. Remove the little piece of tough muscle from each one first, and they will be much more digestible and nicer. Meats require slow cooking after searing over outside to keep the juices in.

How may the tougher parts be prepared? By long, slow cooking (never at a high temperature, except the first few minutes to sear over the outside and keep the juices in), or they may be ground through the meat cutter, and made into Hamburg steak, or meat loaf.

How can Hamburg steak be greatly improved? By putting through the grinder twice, and adding about a tablespoonful of water to each half cup of ground meat, and also a little table oil.

Will thin, small portions of bread doughs or cake cook quicker than thick ones? Yes; and they may have a hotter oven than a loaf of bread or cake. Starchy foods like cereals, macaroni, bread, biscuits, rolls, griddle cakes, etc., need to be thoroughly cooked to break open the tiny starch envelopes and make them easy to digest. Underdone starchy foods are not fit for a human being to eat; in time they will undermine the digestion, and diminish

one's efficiency. More ill-health, bad temper, inefficiency and drunkenness are chargeable to over-cooked eggs, and egg mixtures; hard cooked and fried meats, under-cooked bread, cereals and other starchy foods, boiled tea, and greasy cooking, than most persons realize.

Why are fats heated to a very high temperature irritating to the stomach? Because it decomposes them, causing the formation of an acid that is very irritating.

Why are fried foods more indigestible than if cooked in some other way? Because of this irritating acid. Water can never be heated hotter than 212° F. It is a waste of gas to keep it boiling rapidly for the extra heat only goes off in steam, which heats up the kitchen, and the food does not cook one bit quicker than when gently boiled.

Fat can be heated to 300° or 400° and will brown food cooked in it unless there is water in the fat which will reduce the temperature; so it must be heated until that is evaporated before it will brown nicely again.

What harm does it do to have steam, and vapor from cooking fats escape through the house? They form a film of grease and moisture on walls, woodwork and hangings, which catches dust and germs.

How may this be removed from the woodwork? With a cloth with a little coal oil on. But the kitchen door should be kept shut to prevent these vapors from getting into the rest of the house. Unnecessary steam should be avoided, by not letting water boil long before it is wanted; and food cooks just as quickly when it boils gently as when rapidly, which only means the heat is going off in steam.

Will moisture evaporate more quickly from a large surface than a small one? It will, so the same pudding baked in a large, shallow dish, will be much dryer than if baked in a small, deep one.

Is this true in making sauces, etc., in a large, shallow pan, or in a small, deep one? It is; it will be thicker cooked in a large, shallow pan.

Should chicken be soaked in water when cleaning it? Never. Before cutting it up, rub a little baking soda all over the skin, then scrub it off with a clean cloth or brush kept for the purpose. Wash out the inside *thoroughly* after all the contents have been removed.

In baking, how much soda is required to one pint of sour milk? One level teaspoonful.

Should baking powder, or soda be mixed with the flour, milk or molasses? Always mix it with the flour, never with the liquids. Why? It needs the moisture to produce the gases formed by the combination, and when the baking powder or soda is put in the liquid these are lost in the air instead of being retained in the batter.

Why are pie crust and biscuits lighter when the ingredients are cold? Because air expands when heated and the colder it is the more it expands when put in the hot oven, so forcing the particles of dough apart, and making the pie crust lighter. Also when the shortening and flour are warm it sticks together, so less air is mixed in when rolling and folding it.

Is as much baking powder required when several eggs are used? No; for the eggs help to make the cake light.

Is a cake improved by having an excessive amount of baking powder? No; it will make the cake coarse-grained.

How may a greater variety be obtained in cooking? By using different seasonings and flavorings.

Name some of them. Paprika, onion salt, celery salt, bay leaves, bitter almond, preserved ginger, capers.

In seasoning a roast of beef where should the salt be put? On the fat portion, as it will then penetrate the rest, and not draw out the juices as it will if put on the fresh cut lean part.

Will vegetables cook tender in hard water? It is difficult to cook them tender. A little soda will help to make them more tender, especially beans, lentils and dried peas.

What is one important point in serving food? To have it the right temperature. Soups, cereals, potatoes,

and other vegetables served partly warm are not appetizing.

Name some fruits and vegetables that are much improved by serving very cold? Grape fruit, oranges, grapes, melons, olives, sliced tomatoes and celery.

Are bananas and peaches better eaten cold? No.

HOW TO MEASURE.

What should one use for measuring? Always keep regular measuring cups, marked off for thirds, quarters and halves. They can be bought for five or ten cents, and it is impossible to be sure of the result in cooking unless one measures accurately.

Is a measuring spoon helpful? It is, very, in measuring half and quarters, etc.

How should flour be measured? Sift the flour first; fill the cup lightly, and even off with a knife.

Should any light substances, baking powder, spices, etc., be pressed down in measuring? No; fill lightly, and even off with a knife. Measure dry ingredients first to save extra dishes.

TABLE OF MEASUREMENTS.

3 teaspoons make.....1 tablespoon.
3 tablespoons make.....1 wine glass.
2 cups make.....1 pint.
2 pints make.....1 quart.
4 quarts make.....1 gallon.

1 quart of flour
3 cups of corn meal
1 pint of butter
1 pint of milk
10 eggs
2 cups of granulated sugar
2 cups of rice
} Make 1 pound.

16 tablespoons of liquid make 1 cup.

TIME TABLE FOR COOKING MEATS.

Chops or steak, 1 inch thick about 5 minutes on each side after searing over.

Leg of lamb, 4½ lbs. about 2 hours in moderate oven.

Rib roast of beef, or rib or breast of veal, from 15 to 20 minutes to the pound.

Loin of pork, for 3 lbs. about 3 hours.

Pot roast of beef, lamb or veal, 4 or 6 hours according to size.

Boiled ham, weighing 8 or 9 lbs., 3 to 4 hours.

Corned beef, 3 to 4 hours.

Stewed chicken, 1½ hours if young, 4 to 5 if old.

Beef loaf (2 lbs.) 1½ hours.

Scalloped oysters, ½ to ¾ of an hour—have very moderate heat.

TIME TABLE FOR COOKING EGGS.

That depends on the amount of water used, whether the dish is large and shallow, or deep and small around, whether the eggs are very cold from the refrigerator, or have been standing in a warm room.

The proper way is to have one special dish that holds the amount of water necessary for the number of eggs usually cooked. If you use a little water it will not hold the heat so long and the eggs will not be cooked so much; if there are many eggs they will lower the temperature of the water more than if there are only one or two, and they will not be so well done. See pages 121 and 122.

TIME TABLE FOR COOKING VEGETABLES.

Vegetables that are young and tender, and freshly gathered, require less time for cooking than those that are tough, and some time gathered.

Potatoes (white) boiled, 30 minutes.

Potatoes (white) baked, 45 minutes.

Potatoes (sweet) boiled, 50 minutes.

Potatoes (sweet) baked, 60 minutes.

String beans, 3 hours.

Boiled beets, 1 to 4 hours.
Stewed celery, about 45 minutes.
Creamed cabbage, from 30 to 45 minutes.
Hot slaw, from 30 to 45 minutes.
Cauliflower, 1 hour.
Boiled spinach, from 20 to 30 minutes.
Kale, from 45 minutes to 1 hour.
Water cress greens, 1 hour, or until tender.
Boiled onions, about ¾ of an hour, if medium size.
Boiled turnips, about ¾ of an hour.
Canned tomatoes to scallop, ¾ of an hour.

TIME TABLE FOR BREAD AND MUFFINS.

Bread, 1 hour.
Baking powder biscuit (small size), about 15 minutes.
Corn bread, about 30 minutes.
Wheat muffins, about 15 to 20 minutes.
Graham muffins, 25 minutes.
Pop-overs, about 30 minutes.

TIME TABLE FOR CEREALS.

Hulled wheat, *over night* in *fireless cooker,* after soaking 6 or 8 hours and cooking 20 minutes.

Large hominy, cook all day slowly, or over night in *fireless cooker,* after soaking all night, and cooking about 30 minutes.

Rolled oats; cook about 10 minutes, then over night in *fireless cooker,* or cook two to three hours in double boiler.

Cream of wheat, ¾ hour.

Hominy grits, soak about 4 hours, cook 15 minutes, then over night in *fireless cooker.*

TIME TABLE FOR COOKING FRUITS.

Apple sauce, about 20 to 30 minutes.
Baked apples, about 45 minutes.
Baked bananas, 30 minutes or longer.
Cranberries, about 30 minutes.
Evaporated fruits, about 2½ hours, very slowly.

Underlying Principles of Cooking

BAKED FOODS.

Is there danger of having the oven too hot in baking? Yes.

Why? Because in baking if the oven is too hot, even though the food is not burned, it will be dried out and tasteless. A delicious roast of meat may be entirely spoiled, by having the oven too hot while baking, after it has been seared over. This is more liable to occur with a gas oven, but there is no excuse for it, because one can regulate the heat perfectly after a little practice.

Is it very important to have the oven the right temperature for batters and doughs? It is; for it makes all the difference between a light, fine grained, or a coarse, tough heavy food.

Why is this? The heat makes the bubbles of gas and air expand, and this pushes the particles of the batter or dough apart and so makes the food light; if the oven is too hot they will expand so fast that they will burst their separate cells and form a smaller number of large ones; so making the food filled with large holes and solid masses between.

What is a good rule to follow in baking batters and doughs? The thicker the batter or dough, the hotter the oven required. A thin batter like pop-overs or angel cake requires a very moderate oven, while bread and biscuit require a hot oven.

Why should cakes made with molasses be cooked in a slow oven? Because molasses burns at a low heat, and if the oven is hot the cake will have a burnt taste.

What is the danger in moving a cake or other kinds of dough, except bread or biscuits, that is baking? If it is moved before the batter has had time to set—that is,

before the cell walls have hardened—it will collapse like the walls of a tent when the poles are taken down, and the food will be heavy.

Will the amount of heat make any difference in baking custard or custard puddings? It will a great deal. If the oven is hot the custard will be tough, hard, and indigestible, because eggs cook at such a slow heat; they shrink and become hard and indigestible if cooked at a high heat; but in a dish of hot water, baked in a moderate oven it will be soft and jelly-like.

FRIED FOODS.

What is the most extravagant and most unhealthful way to fry food? To put about half an inch of fat in the dish used for frying.

Why? Because the food will soak up more grease than if plunged into a half kettle of hot fat, so that it is covered all over at once.

Why? The entire outside is then seared over, so it will not take up more of the fat.

Why does food take up more fat when put in a small quantity of it? Because the air passing over the food keeps it at such a low temperature that it soaks up the grease all along the edges where it is exposed to the air.

Why is it that food browns quicker in fat not used before? Because fat that has water in it can never be heated to as high a temperature, and having used it to fry in before, it has absorbed some water and that water must be cooked out of it or evaporated before it can be heated as hot; then it is just as good to fry in again.

Is butter good to fry in? No; it can never be heated as hot as snowdrift or lard without burning. It is the most unhealthful fat there is to fry in, because the food will soak up so much of it.

Is there any other reason why butter is unhealthful to fry in? Yes, uncooked butter is easily digested, but when it is allowed to reach a high temperature, as in frying, its

nature is entirely changed and it becomes very irritating to the stomach.

Is frying a good way to cook food? No; but food properly fried in deep snowdrift or crisco is not nearly so indigestible as when fried in a small amount of butter or fat of any kind.

How can you tell when fat is hot enough for frying? Drop in a soft piece of bread, about an inch square, and if it turns a golden brown in 40 seconds, it will be right for frying croquettes, fish balls, etc.; but for uncooked mixtures like fritters and doughnuts, it must not be quite so hot, or they will burn before they are cooked through. When the bread browns in one minute, the fat will be the right heat for them.

CEREALS.

In cooking cereals how can you prevent them from being lumpy? If the water is actually boiling, and the cereal is dropped in so slowly that the water does not stop boiling, it will never be lumpy.

Does it make any difference whether the salt is put in before the cereal? It does; the salt should always be put in the water first, and the cereal should never be stirred after the first few minutes.

Why should it not be stirred? It will make it sticky and pasty.

After cooking it on the stove five minutes what should be done with it? It should be put either in the bottom of the double boiler filled with boiling water or on an asbestos mat, where it will cook more slowly; forty-five minutes if it is cream of wheat, or two or three hours if Pettijohn's or rolled oats.

Would it injure rolled oats or cracked wheat to cook longer? No, one can hardly cook those cereals too long. Cook them the day before and heat them very hot the next morning without stirring. It is better to use a fireless cooker.

Why should cereals be so thoroughly cooked? Because they are made so largely of starch, and this is most indigestible unless thoroughly cooked; the best digestion would be ruined in time by eating constantly undercooked starchy foods.

BREAD-MAKING.

What is needed in making good bread? Perfectly clean hands and finger nails, clean dishes, the best flour, fresh yeast, shortening, a little salt, sugar, water or milk, and a hot oven.

What is yeast? It is a very small plant that needs nourishment, water, air, and warmth to make it grow.

How large are the yeast plants? They are so small they cannot be seen without a magnifying glass.

Will the yeast plants grow if the dough is made out of cold flour? No, it would be like expecting house plants to grow in a cold room, just above freezing.

Why does bread get light so much quicker sometimes than at other times? Because the temperature of the dough makes a great deal of difference in the rapid or slow growth of the yeast plants.

What makes the dough light? These little yeast plants in growing give off carbonic acid gas and this pushes apart the particles of dough.

Is there danger of the yeast plants getting chilled if the dough stands in a draft? Yes, it will injure their growth more than it would a hothouse plant.

Should the yeast be mixed thoroughly through the dough? Yes, or all parts will not be equally light; that is one advantage in using a good bread mixer.

What should be done if the bread does not rise fast enough. Stand it in a dish of warm water, and add more warm water about every half hour; but do not keep it too warm.

How long should it take to rise the first time? Four hours, when it should have doubled in bulk, and the sec-

ond time it should take one hour, when there should be twice as much as was put in the baking pans.

Will it injure the bread if the dough gets too light? Yes, especially the second time, when it has been shaped into loaves, it will be coarse-grained, and will fall when put into the oven, and there will be a heavy line near the bottom of the loaf.

Does bread ever have this heavy line on the bottom from any other cause? Yes, if it is put to rise where the heat on the bottom of the pan is too great it will kill the yeast plants and stop the bread from rising in the bottom of the pan.

What causes sour bread? It is caused by an acid given off by undesirable bacteria in their growth in the bread; these bacteria, like yeast, are little microscopic plants.

How did they get in the bread? They may have come from unclean hands or dishes, or the dough may have been left to stand too long, so that the yeast in it stopped working, and the dangerous bacteria then had a good chance to grow.

Is there danger of having the oven too hot? Yes, if it is too hot, when the bread is put in, it will form a thick crust on top and prevent the heat from reaching the center of the loaf, so that part of the bread will be underdone and very indigestible, while the outside crust may be burned. Besides, the gas cannot penetrate the hard crust and it will make large holes just under it.

When should the fire be attended to that the oven may be right for the bread? When the bread has been in the baking pan one-half hour, if coal is used. The ashes should be shaken down and coal put on, so the fire-box will be half full evenly across; see that no pieces of coal have lodged between the top of the stove and the top of the oven to prevent the heat passing over the oven; open the dampers, and in ten minutes close some of them.

How hot should the oven be when the loaves go in? Rolls and small long loaves require a hotter oven than

large ones. When it is nearly time to put the bread in, scatter a spoonful of flour on a piece of paper and put in the oven; if it browns nicely in five minutes it is right for the large loaves; but it should be quite brown in three minutes for rolls.

How can the loaves be made to rise evenly in the oven? By turning them after they have been in five minutes, though they look even.

Why does the loaf continue to rise after it is put in the oven? After a while, though the heat kills the yeast plant it makes the gas bubbles expand and forces the particles of dough farther apart, and also turns some of the moisture into steam which makes it still lighter.

Why should it be thoroughly cooked? To kill all of the yeast plants in the very center of the bread and burst open the little indigestible cells that holds the starch grains, so it can be digested; for we cannot digest raw starch.

When will the bread be baked enough? In one hour. The loaf should contract some so it will slip easily from the pan; if it is underdone, there will be so much steam escaping from the bottom of the loaf you cannot hold your hand on it; then it must be returned to the oven and baked longer. The heat of the oven should be reduced the last 15 minutes by closing the dampers.

What should be done with the bread when it is baked? It should be taken from the tins and tipped against something to let the air circulate around it, or it can be placed on a wire cooling rack, in some place out of the dust, but left uncovered until cold, then put away in a perfectly clean bread box without any cloth or paper over it; if an apple is put in the box it will help to keep the bread moist.

What shows that bread is underdone? If a crumb of the bread is rolled between the fingers it will crumble apart if it is sufficiently baked; but if not it will form in a solid ball.

Is bread a wholesome food? It is, if properly made

from good flour and well baked; but poor bread badly baked is very injurious.

Is bread an economical food? It is, for there is no waste if all the pieces are saved, as they should be, and it is completely digested.

How can dry bread be used? For milk toast, or French toast, bread pudding, scalloped tomatoes or meats, in meat loaf, dressing for fowls, and for bread crumbs for frying.

How should bread crumbs be prepared? Dry the bread in a cool oven until crisp, roll on the bread board, sift through the flour sieve, put away in a glass jar until needed.

Why is well-made bread a good food? Because it has the three kinds of nutrients in about the right proportions needed by our bodies.

Is good home-made bread better than baker's bread? Good home-made bread is delicious, but if it is sour, heavy, or slack baked it is inferior to good baker's bread.

Can as good bread be made with a bread mixer as by hand? There are good bread mixers on the market which will knead the bread in three minutes with no effort and give just as good bread as kneading by hand, and it will be more cleanly and sanitary.

What is the best method of greasing bread, cake, and muffin tins, etc.? Use a small 5 or 10 cent paint brush kept for the purpose, with a little fresh snowdrift or lard. There should never be enough used to make the outside of the food greasy when baked. Muffins which grease the fingers in handling are very unattractive.

What is the best way to grease the griddle? Use a little piece of salted pork, or a small piece of fat from roasted meat. This will grease the griddle sufficiently, and the cakes will be much more wholesome than where a lump of butter is put on the griddle and brushed around with a knife.

If the cakes stick to the griddle what should be done? Put on a spoonful of salt, and rub thoroughly with a crust of bread.

TEA AND COFFEE.

In making tea or coffee why should one use fresh water just brought to the boiling point? Because parts of the gases of which water is made up are lost in boiling, and this will make the tea or coffee have a flat taste; it will lack that delicious freshness, and it will not draw out the flavor of the tea or coffee so well.

What is the first thing necessary in making tea or coffee? To have a perfectly clean tea or coffee pot; then scald it thoroughly.

Is it better to have the coffee pulverized? It is; for more of the strength is thereby saved.

Is boiled tea injurious? It is; for it is full of tannin, which is very injurious to the stomach and very bad for the nerves.

Should tea or coffee stand long on the leaves or grounds after making? Never but a few minutes; if any is left over it should be poured off and used as cold tea, or as coffee flavoring for jellies, custards or puddings; if allowed to cool and then be reheated it will never have so fine a flavor.

What kind of a tea pot should be used? A stone or earthenware one—never a tin one; because as soon as a bit of the tin is worn off the tannin will act on the iron on which the tin is plated and form tannate of iron, which is very injurious.

How can a coffee pot in daily use be kept free from all stale coffee odor? Keep it well aired in the sun and once a week fill it up with boiling water, add one teaspoonful of soda and boil several hours; wash out thoroughly with a cloth, rinse and dry.

BUTTER.

Does butter need to be kept covered? It does, for it quickly absorbs the odors around it, which will spoil its flavor, besides it will become contaminated with bacteria from the air.

SOUPS.

Why should meat for making soup be cut into very small pieces? Because more of the surface of the meat is brought in contact with the water and more juice is drawn out in the soup.

Why should it, then, stand in cold water one-half hour? It will help very much in drawing the juices out, which is what we want in making soup.

Why should meat for soup always be put in cold water to cook? Because hot water will sear over the outside of the meat and stop the juices from coming out.

Why should soup meat always be cooked very slowly just at the bubbling point? More of the goodness of the meat will be drawn out.

Should it finish cooking at a higher temperature? Yes, to dissolve the connective tissue and the gelatine in the bones and cartilage. It is only an ignorant cook who puts her soup bone whole into a kettle of boiling water and boils it vigorously.

Is there any nourishment left in soup meat? There is a good deal, for albuminoids are not soluble in water, so they cannot be extracted from the meat, and it should not be thrown away.

In what ways can it be used? It can be chopped very fine, or put through a meat cutter, seasoned with salt and a little pepper, and onion juice if liked, moistened with a little water, pack down in a tin, let stand with a heavy weight on top until firm. Slice thin, or cut in thick slices, dip in white of egg, slightly beaten, with a tablespoon of water; roll in bread crumbs, and fry in a deep fat—crisco or snowdrift is best. Soup meat may also be used in making croquettes, or in hash.

MEATS.

Why should chops, steaks, stews, roasts, and boiled meats be cooked at a very high temperature the first few minutes? To sear over the outside and keep all the juices in.

Why should they finish cooking at a slow heat? So the fibre of the meat will become softened without the albumen becoming hard, as it surely will if cooked at a high temperature.

How can steak be made more tender? Rub it with one tablespoon of vinegar and two of olive oil mixed together and let stand several hours.

How does this make it more tender? The acid of the vinegar dissolves the connective tissue.

EGGS.

Why should eggs always be cooked at a very slow heat, below the boiling point? Because eggs are nearly all albumen, and this cooks at a very slow heat, and if cooked at a high heat it becomes very hard and indigestible.

Should the water boil in which eggs are being cooked? No, neither in their shell nor as poached eggs, and if they are being scrambled the dish should always be set in hot water or on an asbestos mat—never directly on the stove.

Why should custards and all custard puddings be put to bake in a dish of hot water with a piece of paper in the bottom of it? So the albumen of the eggs will cook at a slow heat and be a soft jelly-like mass instead of hard, tough and indigestible.

VEGETABLES.

If one has to use vegetables that are at all wilted, what should always be done to them? They should be put in cold water several hours to freshen.

Why should the water always be boiling when the vegetables are put in to cook (except dried beans and peas)? Because they retain their flavor and color better.

Why is it better to cook vegetables in an uncovered dish? Because they keep their color better and there is much less odor when cooking cabbage, onions, turnips, cauliflower, and kale if they are left uncovered.

Why should a teaspoon of salt be put into each quart of boiling water before the vegetables are put in to cook? Because they will have a very much finer flavor than if cooked in unsalted water. With dried beans and peas the salt can be added after they have cooked a little while.

Should vegetables cook slowly or rapidly? They are better if cooked slowly, but the water should not fall below the boiling point or they will become water-soaked.

Should vegetables be boiled in a large quantity of water? No, or a large part of their flavor and sweetness will be wasted in the water.

POTATOES.

When potatoes are rightly cooked, are they a good food? Yes, because they help to furnish some of the needed bulk and waste for the system, though there is not much nourishment in them.

Should new potatoes be given to children and invalids? No, they are like unripe fruit, the starch in them is not ripened, and is hard to digest.

Why should potatoes cooked at one time be of as nearly the same size as possible? So they will all be ready to take up at the same time.

Why should potatoes be pared thin? The most nourishing part of a potato is next the skin.

Why should they be put to cook in boiling water? Less of the goodness of the potato is lost in hot water than if cold water is used.

Should potatoes boil violently in cooking? No, it is apt to make the outside broken and ragged.

Should the water be kept boiling all the time they are cooking? Yes, or they will be water-soaked.

Should potatoes be thoroughly cooked? Yes; for all starchy foods are hard to digest unless thoroughly cooked.

Should potatoes be taken out of the water as soon as tender? Yes, or they will become water-soaked.

Should all the water be carefully drained from them? Yes; then the kettle should be shaken over the fire a few seconds until every particle of the water and steam is dried out, and they look like white, mealy balls.

Is this necessary if they are to be mashed? It is, very. Mash them thoroughly, beat vigorously with a wooden spoon, add more salt if needed, and a very little hot milk, keep them hot while fixing them.

Should they be patted down in the serving dish? Never! They should be put in loosely and left uncovered.

Should potatoes be put in a hot oven to bake? Yes; so they will not be watery and soggy.

How can you make baked potatoes mealy? When they are nearly baked, protect the hand with a clean cloth and break open the skin a little; this will let the steam out and make them mealy.

Should they be eaten as soon as baked? Yes; they are not nearly as good if they stand.

MILK.

Is there danger in putting an uncovered dish on the steps, for the milk to be left in? There is great danger; it should never be done under any circumstances.

What should milk be kept in? Glass jars or milk bottles are best, but a well-glazed earthen dish, or fresh tinware that is perfectly bright, but never if it is old.

Is it necessary that milk should be kept cool? It is very. It should be cooled as soon as it is milked, and kept cool. The bacteria in it will grow very rapidly if it is not, and cause it to sour more quickly.

If ice cannot be had for keeping it cool what should be done? It should be kept in a dish of cold water, changing the water occasionally to keep it cool.

Will this prevent it from souring in a thunderstorm? It will if the water is cold enough.

Why should milk never be left standing uncovered? There are always germs floating in the air, and these will collect in the milk if uncovered, and multiply there very rapidly, making the milk unfit for use. Diphtheria, scarlet fever, typhoid fever, and tuberculosis are often contracted by using milk which has been infected with these germs. Even if no disease germs find their way into the milk other germs or bacteria, which will make the milk sour more quickly, will get in if milk is left uncovered.

IMPORTANT QUESTIONS.

Why should meat to be used in making soup be cut in small pieces?

Why should meat for soup always be put over to cook in cold water?

Why should soup meat always cook very slowly until the last half hour or so?

Why should meats always be cooked at a high temperature the first few minutes—except for soups?

Why should meats finish cooking at a slow heat?

How can steak be made more tender?

Why should eggs be cooked at a slow heat, always below the boiling point?

Why should custards and custard puddings be baked in a dish of hot water?

If obliged to use vegetables that are a little wilted what should be done to them?

Why should vegetables always be put over in boiling salted water?

Why should onions, cabbage, kale, string beans, greens, turnips and cauliflower be cooked in an uncovered dish?

Should vegetables cook slowly or rapidly?

Why should vegetables be cooked in a small quantity of water?

In cooking cereals how can you prevent them from being lumpy?

Why should cereals never be stirred after the first few minutes?

Why do cereals require long cooking?

Why should water for tea or coffee be put over fresh and just brought to the boiling point?

Why should the coffee or tea pot be scalded just before using?

Why is boiled tea injurious?

Why should tea or coffee never stand long on the leaves or grounds?

Why should tea and coffee never be left standing around in the pot?

Why should only the amount of tea or coffee wanted be made at one time?

Why should one never use a tin tea pot?

How can a coffee pot be kept from all odor of stale coffee?

Why should new potatoes not be given to children and invalids?

Why should potatoes be pared thin?

Why should potatoes not be boiled violently?

Why should potatoes be thoroughly cooked?

How can boiled potatoes be made mealy and dry?

How can baked potatoes be made mealy?

What is the most extravagant and most unhealthful way to fry food?

Why is butter the most unhealthful fat for frying?

What is needed in making good bread?

What is yeast?

How large are the yeast plants?

Why does bread rise quicker sometimes than at other times?

What makes the dough light?

Is there danger of the yeast plants getting chilled?

What should be done when the bread does not rise quick enough?

Will it injure the bread if the dough gets too light?

What two things may cause a heavy line at the bottom of the loaf?

Is there danger of having the oven too hot?

When should a coal fire be attended to that the oven may be at the right heat when the bread is ready to go in?

How hot should the oven be when the loaves go in?

How can the loaves be made to rise evenly on both sides in the oven?

Why should bread be thoroughly baked?

How can you tell when it is thoroughly baked?

What shows that bread is underdone?

What is one of the most important things in cooking?

Is a hard coal fire difficult to manage?

How is the best way to build a coal fire?

Will it make any difference if the ash pan is full of ashes?

Why should the coal never come up higher than two inches below the top of the fire box?

Will the oven be hotter if the stove is filled close to the lids?

What four things will make the oven bake badly?

When one is through using the fire what should be done?

Where must the cold air enter to make the fire burn?

Where must the cold air enter to prevent the fire from burning?

Should the coal burn to a white heat?

What mistake is often made in caring for a kitchen fire or a furnace?

What causes clinkers in the range or furnace?

How can they be removed?

If anything is spilled on the stove what is the best thing to do?

What mistake is most often made with a gas range?

How can this be prevented?

How can the gas be saved in cooking?

Is there danger of having the oven too hot in baking?

Can meat be spoiled by roasting in too hot an oven?

Is it important to have the oven at a certain heat in baking bread, muffins, etc.?

Why will too hot an oven make the food coarse grained and heavy?

Why should food mixed with molasses have a very moderate oven?

Why should cake or muffin batter have time to set before moving or jarring it in the oven?

Note.—Answers to these questions will be found on the preceding pages, and should be carefully studied.

Fruits

APPLE SAUCE.

¼ peck apples. 1 cup boiling water.
6 tablespoons sugar.

Wash and pare thin; cut into eighths; put in stew pan and pour over the boiling water. Sprinkle the sugar over, cover tightly and cook about 20 minutes, or until tender, on an asbestos mat, shaking the dish often to keep from burning. Turn out carefully.

BAKED APPLES.

Wipe and core sour apples; fill with sugar, put in granite pan, pour in a little boiling water, bake in moderate oven until very tender and soft looking. Some kinds take longer than others. Serve hot or cold. Or the apples may be pared after coring. If the apples are very tasteless a little spice may be mixed with the sugar.

BAKED BANANAS.

6 bananas. 6 tablespoons hot water.
1/3 cup sugar. 3 tablespoons lemon juice.
2 tablespoons melted butter.

Remove the skins of bananas; scrape off the rough strings under; then cut in halves lengthwise, then once across; put in layers in shallow granite pan; mix the other ingredients together and spread between layers of bananas and on top; bake 30 minutes or longer in slow oven until rich in color. Serve hot either as a vegetable or for dessert.

STEWED PRUNES.

Wash them very carefully one by one; put 1½ pints of cold water in the stew pan for each pint of prunes.

Cook very slowly on the back of the stove where they can only simmer for 2½ hours. Cooked in this way they will not need any sugar and will be delicious.

JELLIED CRANBERRIES.

Look over and wash 1 pint cranberries; put in granite kettle with ½ pint sugar, ½ cup water. Cook very slowly 30 minutes, pressing down occasionally with wooden spoon. Pour out to cool; arrange in broken pieces in serving dish.

CRANBERRY JELLY.

Proportion as above. Boil the berries in the water 10 minutes or until all of them have burst; rub through a fine strainer—using wooden or granite spoon, as tin or iron will spoil the flavor—add the sugar; cook 10 minutes. Pour out into molds and chill.

Beverages

(*See Underlying Principles, page 96.*)

TEA.

1 scant teaspoon tea. 1 teacup boiling water.

Scald an earthen or stone teapot; put in 1 scant teaspoon tea for each cup wanted; pour on same number cups of freshly boiled water. Stand on back of stove, where it cannot boil, 5 minutes. Then serve.

COFFEE.

Always allow 1 heaping teaspoon of pulverized coffee for the pot and for each cup of coffee wanted, and 1 cup of boiling water for each cup of coffee. Scald the coffee pot; put in top a bag made of thin unbleached muslin, draw over the top of pot and tie cord around to hold it in place. Put in the pulverized coffee, pour on the boiling water, drain it off and pour through again. Serve at once, before it has chance to cool, for coffee that has cooled and been reheated will never have a fine flavor.

Coffee made this way is much less injurious than when "steeped," or boiled, as it contains less caffeine and coffee tannin. A china coffee pot does not effect the flavor of the coffee as any kind of metal one does.

A very convenient coffee bag with wire attachment to fit top of pot can be bought for a few cents. The coffee bag must be washed thoroughly in cold water every time after using.

CEREAL COFFEE.

Six heaping teaspoons Postum cereal to 1 quart of cold water. Stir and put on to cook with butter size of a pea. Boil 15 minutes. After the boiling point is reached,

strain through a fine sieve. If it is served with milk instead of cream, scald the milk first. A beaten egg stirred into the milk improves it.

COCOA.

1 pint of milk.
1 pint of water.
2 tablespoons cocoa.
2 tablespoons sugar.
¼ cup boiling water.

Mix cocoa and sugar together, pour on the boiling water; cook a few minutes stirring all the time; then add milk and water boiled on asbestos mat or double boiler. Beat with a dover egg beater to make it nicer. A few drops of vanilla improves it. A quart of milk instead of milk and water of equal parts makes it richer. Serve hot.

HOT CHOCOLATE.

1 square of unsweetened chocolate.
Dash of salt.
1 quart milk or 3 cups milk and 1 of water.
Few drops of vanilla.

Cut up the chocolate in a little hot water and cook; stir until smooth, bringing the milk to a boil on asbestos mat; add the chocolate, salt, sweeten to taste; add the vanilla and serve.

Breads, Muffins, Etc.

(*See Underlying Principles, pages 92 to 95.*)

BREAD.

1 tablespoon butter.
1 tablespoon snowdrift.
1 tablespoon sugar.
1 cake compressed yeast.
3 pounds or quarts of flour.
1 tablespoon salt.

Put shortening, sugar, salt, and yeast cake, dissolved in a little warm water, all into a quart measure and fill up with warm water. Put into a patent breadmixer; when all is dissolved add the flour, turn crank 3 minutes. Set over night to rise in warm place; in the morning turn crank few times, form into 2 loaves, let rise till twice its size, bake in moderate oven 1 hour. After 5 minutes turn loaves around. The bread should rise in oven 15 minutes, partly brown the next 15 minutes and finish baking the last 30.

HOT ROLLS.

Make the same as for bread, but shape into rolls instead of loaves. The oven should be hotter than for bread. They are much more digestible if they are largely crust, with very little of the soft inside, as this part in eating forms a solid mass and is very difficult for the digestive juices to act upon it. Bake about 20 minutes.

PULLED BREAD.

Take half a loaf of bread and break off crust and pull the rest of it into small pieces; put this with the crust in a shallow pan, place in a moderate oven until thoroughly dried out, then increase the heat until it is a golden brown all over. This is especially nice if made from long crusty French bread.

BAKING POWDER BISCUITS.

One quart sifted flour, 1 teaspoon salt, 4 level teaspoons baking powder sifted 4 times, 2 teaspoons snowdrift or lard, enough cold milk to make a stiff dough (patent flour will require about 1 pint). Rub the shortening and flour between the thumb and fingers to make it into fine flakes, or better, use a wire potato masher with wires close together; add the milk gradually, mixing and cutting through with a knife till the whole is a light spongy mass. Turn on a well-floured board and press with hands to 1 inch in thickness, use a 2-inch cutter and let rise 10 minutes and bake in a very hot oven. This will make just 18 and fill one biscuit pan.

DELICIOUS BRAN STICKS.

Use recipe for baking powder biscuit, given above, only use 3 cups of flour instead of 1 quart, and add one cup of bran. Bake in a sheet iron pan that is divided into narrow compartments, so they will be small crusty sticks about one inch thick when baked. They have a nutty flavor baked this way and are delicious.

RICE CORN BREAD.

1 cup cold boiled rice.
1 cup white Indian corn meal.
1 cup wheat flour.
1 teaspoon baking powder.
2 eggs.
½ teaspoon salt.
1 tablespoon melted butter.
2 cups milk.

Mix the dry ingredients and add beaten eggs mixed with milk and melted butter. Pour into shallow greased pans. Bake 30 minutes in a moderate oven.

SOUTHERN CORN BREAD OR SPOON BREAD.

1 pint of milk.
1 cup cornmeal.
Butter size of an egg.
2 eggs well beaten.
½ teaspoon salt.
2 teaspoons baking powder.

Boil the milk, stir in the cornmeal, let stand a few minutes; add butter, eggs well beaten, salt and baking powder. Bake in greased pan 20 or 30 minutes. Serve immediately.

GOLDEN CORN BREAD No. 2.

¾ cup corn meal.
1¼ cups flour.
¼ cup sugar.
4 teaspoons of baking powder.
½ teaspoon salt.
1 cup milk.
1 egg.
1 tablespoon snowdrift.

Mix and sift dry ingredients; add milk, egg well beaten, and snowdrift; bake in shallow buttered pan, in hot oven 20 minutes.

FRENCH TOAST.

2 eggs.
1 cup milk.
¼ teaspoon salt.
Slices of bread.

Beat the eggs without separating, add milk and salt, dip into this the slices of bread cut about ½-inch thick. Have frying pan hot, put in a little butter to prevent sticking, and brown a light golden brown. Serve at once. Syrup can be eaten with it if preferred.

WATER TOAST.

Cut stale bread in ¼ inch slices, or take pieces of bread left over; put in oven or toaster held some distance from fire until one side is dry, then the other. Hold near the coals until a golden brown on both sides; scrape if it is burned. Stand in warm place until all is toasted, dip quickly in boiling salted water, allowing ½ teaspoon salt to 1 cup boiling water. Spread lightly with warm butter. Serve very hot.

MILK TOAST.

Toast bread as above; dip quickly a slice at a time into hot milk, with a little butter and salt in it. Serve very hot.

WHEAT MUFFINS.

1 pint of flour.
2 teaspoons baking powder.
½ teaspoon salt.
1 beaten egg.
1 tablespoon shortening melted.
1 cup milk.

Sift all the dry ingredients together, except the baking powder; add the milk, the beaten egg, and shortening—either butter, lard or snowdrift. Beat vigorously, add the baking powder, stir a moment, and bake quickly in hot oven about 15 minutes.

GRAHAM OR ENTIRE WHEAT MUFFINS.

1 cup flour.
1 tablespoon sugar.
1 cup graham or entire wheat flour.
1 teaspoon salt.
1 egg.
1 tablespoon of melted butter.
4 teaspoons of baking powder.
1¼ cups milk.

Mix and sift together all the dry ingredients except the baking powder; add milk gradually, egg well beaten, and melted butter; beat vigorously. Then add the dry baking powder; stir in lightly; bake in rather hot oven in greased gem pans 25 minutes.

POP-OVERS.

1 cup flour.
1 cup milk.
1 egg.
1 teaspoon salt.

Put flour in bowl, add milk and yolk of egg beaten light; beat vigorously about 10 minutes, then cut in the whites of eggs beaten stiff. Have the gem pans already greased, fill even full; bake in moderate oven 30 minutes or until thoroughly done, when they will be twice as large and very crusty. They will be spoiled if underdone.

GRIDDLE CAKES.

2 cups flour.
1 teaspoon salt.
3 teaspoons of baking powder.
2 tablespoons of melted butter.
1½ cups milk.
2 eggs.

Sift together the flour and salt; to this add the eggs beaten very light and mixed into the milk without stirring much, so the air will not escape from them; beat this batter vigorously; then add the dry baking powder, stir very little, just enough to mix it in evenly, and bake on hot griddle greased very lightly with a bit of salt pork or suet.

WAFFLES.

1¾ cups flour.
3 teaspoons baking powder.
½ teaspoon salt.
Yolks 2 eggs.
Whites 2 eggs.
1 tablespoon melted butter
1 cup milk.

Mix and sift dry ingredients; add milk gradually, yolks well beaten, butter, and whites of eggs beaten stiff; cook on waffle iron, well heated and greased on both sides before iron is filled. In filling, put a tablespoonful of the mixture in each compartment, near center of iron, and mixture will spread to just fill iron. If sufficiently heated, it should be turned almost as soon as filled and covered. In using a new iron, have it greased thoroughly or waffles will stick.

Cereals

(*See Underlying Principles, pages 91, 92.*)

ROLLED OATS.

1¼ quarts boiling water. ½ quart rolled oats.
2 teaspoons salt.

Sift oats slowly into boiling water, let cook 5 minutes, put into double boiler and cook from 2 to 3 hours—without stirring. Better to use fireless cooker.

BOILED RICE.

Look over and wash thoroughly 1 cup rice, drop slowly into 2 quarts of rapidly-boiling water which has 1 teaspoon of salt in it. Stir only the first few minutes. Boil fast 30 minutes or until soft; drain in strainer; pour over a quart hot water; put back in kettle, cover and let steam until dry. Kernels will separate. Serve hot.

CREAM OF WHEAT.

1 quart boiling water. ¾ cup cream of wheat.
1 teaspoon salt.

Have water boiling rapidly, add salt, drop in the wheat slowly enough so it will not stop boiling (then it will not lump); stand dish on asbestos mat or in double boiler and cook slowly ¾ of an hour.

LARGE HOMINY.

1 quart boiling water. 1 pint hominy.
2 teaspoons salt.

Use either an earthen crock or granite kettle. Put hominy into boiling salted water and cook all day, without stirring. If in earthen crock stand on back of stove; if in granite kettle on an asbestos mat.

FINE HOMINY (Grits).

Soak one cup hominy grits over night in a pint of water, add another pint boiling water and 1 teaspoon salt, cook briskly ¾ of an hour. It must be soaked over night to be properly cooked. Better cooked in fireless cooker.

BOILED BREAD AND MILK.

1 cup milk.
½ teaspoon butter.
½ cup of bread broken in small pieces.
1-8 teaspoon salt.

Rinse a clean kettle with cold water to keep the milk from sticking; pour in the milk set on an asbestos mat; when it reaches the boiling point drop in the bread, having added an ⅛ of a teaspoon of salt; let scald a minute; then remove from the fire and serve at once. The milk should not be boiled, as it is apt to cause constipation; but is good boiled in case of summer complaint.

CREAMED MACARONI WITH CHEESE.

Break ¼ pound of macaroni into pieces about 1 inch; drop into 2 quarts boiling salted water and boil about 1 hour. While boiling grate ¼ pound cheese. Place ½ pint of milk in a double boiler; rub together 1 rounding tablespoon each butter and flour, add to the milk when boiling, and stir about 2 minutes. Add ½ teaspoon of salt and a speck of cayenne. When the macaroni is tender drain it and add to the cream sauce; add the grated cheese and stir until dissolved. Spaghetti is nicer than macaroni. Cook the same way.

MACARONI WITH TOMATO SAUCE.

1 cup of tomato juice.
2 tablespoonfuls of flour.
2 tablespoonfuls of butter.
½ teaspoonful of salt.
½ teaspoonful of sugar.
1 slice of onion.

Melt the butter carefully and mix with the flour. Take from fire, slowly add the tomato juice, stirring constantly. Add seasonings, boil until it thickens, remove onion. Place alternate layers of macaroni that has been cooked about 45 minutes in boiling salted water, and the tomato sauce in buttered baking dish. Cover the top with buttered crumbs, and bake until thoroughly heated through and crumbs are browned. Rice may be cooked in the same way.

Soups

(*See Underlying Principles, page 97.*)

CLAM CHOWDER.

2 ounces of corned pork.
1 large potato.
1 large onion.
1 large tomato.
8 clams.
About a quart of water.

Cut pork into dice, fry light brown; chop the onion; cut potato in dice, chop the clams, slice the tomato, or use same amount of canned tomatoes; add vegetables and clams with their liquor to the browned pork, add the water, or part water, and part white stock if wanted extra nice. White stock can be made by boiling veal knuckle or bones from chicken or turkey, as for soup.

CLAM BOUILLON.

1 dozen clams.
1½ pints cold water.

Scrub off the clams; pour over them plenty of boiling water; let stand until they begin to open; slip small knife in the opening and cut muscle to separate shell; scrape out clams; drain from juice and chop fine; add juice and cold water, slowly bring to a boil, simmer few minutes, add bit of salt if needed. Serve hot with bread or crackers. Nice for the sick.

CLAM BISQUE.

1 dozen clams.
2 cups cold water.
1 quart milk.
8 tablespoons flour.
1 egg may be added if preferred.
2 tablespoons butter.

Scrub off the clam shells, pour over them boiling water, let stand in the water until they begin to open, take out quickly so as not to lose the juice, run a small knife in the opening to cut the muscles that hold the sides of the shells together. Scrape the clams out, remove the clams from the juice and chop fine, add the

juice and the cold water to the clams, slowly bring to a boil; simmer a few minutes; skim; add the flour rubbed smooth in a little cold water; cook thoroughly; pour in the heated milk, add the butter, a dash of red pepper, and serve hot. The heated milk should not be added until a few minutes before serving, as it is apt to curdle. Add the beaten egg after taking from stove, or it may be left out.

BEAN TOMATO SOUP.

3 cups cold baked beans or stewed beans.
3 pints water.
2 slices onion.
1½ cups stewed tomatoes.
2 tablespoons butter.
2 tablespoons flour.
Salt.
Pepper.

Simmer beans, water, onion and tomatoes together for 30 minutes. Rub through a sieve, add salt and pepper to taste, bind with the butter and flour cooked together, serve very hot.

CORN CHOWDER.

½ can corn.
1½ cups of potatoes cut in ¼ inch slices.
¾ tablespoon snowdrift.
½ onion sliced.
2 cups scalded milk.
A few crackers.
1½ tablespoons butter.
Salt and pepper.

Brown onion in hot snowdrift, stirring to prevent burning. Boil the potatoes in small amount of water until tender then add to onion with two cups of the potato water or boiling water, add heated milk and corn, bring to boiling point, add salt, pepper, butter and crackers moistened in cold milk. Serve hot.

CHICKEN OR TURKEY SOUP.

Take bones and scraps that are left from a roasted turkey or chicken, put over the fire in cold water, slowly bring to a boil, stand where it will cook slowly for 3 or

4 hours; set away to cool; remove the cake of fat from the top, strain, add two tablespoons of rice, salt to taste, boil until the rice is thoroughly cooked. Serve hot. A little celery may be added if preferred.

LAMB BROTH.

3 or 3½ pounds of lamb from the neck.
3 pints cold water.
½ teaspoon salt.

Wipe off meat with a clean cloth, cut in small pieces, put over in cold water, let simmer 3 hours, adding more water if needed. There should be 1 or 1½ pints of broth when finished. Strain, set aside to cool, then remove cake of fat and any particles of it that may remain on top by passing a clean cloth wrung out of hot water over the top.

POTATO BISQUE.

3 medium-sized potatoes cooked in boiling water until done; rub through a strainer. Scald 1 quart milk with 2 slices of onion, remove onion and add potatoes. Melt 3 level tablespoons of butter, add 2 tablespoons flour, 1½ teaspoons salt; stir this until well mixed and add to soup; cook just 1 minute. Garnish with a teaspoon of finely cut parsley and serve.

SPLIT PEA SOUP.

Half pint green split peas—wash, soak over night; cook in 3 pints of cold water and 1 teaspoon salt. Boil 3 hours. In another saucepan put 1 tablespoon of butter in which brown 1 tablespoon each finely chopped onion, carrots, turnips; then add these to the soup and boil 1 hour. Rub through sieve and add ¼ spoon pepper, 1 tablespoon flour wet with milk. Boil 2 minutes. Note.—Some kinds of green split peas do not need soaking and will cook in about 1 hour. The green split peas are nicer than the yellow and less expensive.

PEA SOUP.

1 can peas.
2 teaspoons sugar.
1 pint cold water.
1 pint milk.
2 tablespoons butter.
2 tablespoons flour.
1 teaspoon salt.
⅛ teaspoon pepper.

Drain the peas, add sugar and cold water; cook very slowly 20 minutes. Rub through a sieve, reheat, thicken with the butter and flour cooked together, add the milk slowly, stir smooth; add the salt and pepper. Serve very hot.

CORN SOUP.

Corn soup is made the same way, only use a can of corn instead of the peas, and chop the corn before putting over to simmer. After simmering 20 minutes, put through a sieve and finish as for pea soup.

TOMATO BOUILLON.

½ can tomatoes.
2 pints boullion.
½ onion.
Little salt.
½ tablespoon sugar.

Boil this until nearly one-half quantity; strain; season to taste.

TOMATO BISQUE.

½ can tomatoes.
1 quart of milk.
2 tablespoons butter.
2 tablespoons flour.
1 tablespoon sugar.
1 teaspoon salt.
½ saltspoon pepper.
1 saltspoon soda.
Dash of cayenne.
1 onion scalded in milk.

Stew tomatoes until very soft; put through sieve; put strained tomatoes in granite saucepan; add the soda. When its stops foaming add the butter, little at a time; add salt and pepper. Put milk in dish on asbestos mat;

stir in the flour mixed with a little of the milk, cook thoroughly; then pour the tomatoes slowly into the milk; beat well together. Serve at once. If put together and left to stand it is apt to curdle.

TOMATO SOUP (without stock or milk).

1 quart can tomatoes.
2 heaping teaspoons flour.
1 tablespoon snowdrift.
Half an onion sliced.
1 teaspoon salt.
1 teaspoon sugar.
1 pint hot water.
1 bay leaf.

Rub snowdrift and flour together, moisten with 1 tablespoon cold tomato juice. Boil the tomatoes and onion together fifteen minutes, add the prepared flour and snowdrift and seasoning, boil fifteen minutes longer; rub through a sieve, heat and serve with bits of toasted bread.

VEGETABLE SOUP.

Scrape clean the outside of a soup bone; cut the lean meat from it into inch cubes; put all together in soup kettle with 2 quarts cold water; let stand 30 minutes on back of stove; heat gradually to boiling point; remove scum as it arises; cover and cook slowly 4 or 5 hours, keeping below boiling point. Remove from fire, drain from the bone and meat and let stand until cold; after which fat should be taken off from top. Return to stove and add ¾ cup of cabbage, washed and shaved; 1 good-sized potato, pared and sliced thin; ½ cup onion, sliced thin; 1 cup tomatoes, a few celery leaves, 1 saltspoon barley, 1 tablespoon sago; salt to taste; boil 1 hour.

NOODLES.

To one unbeaten egg add flour, beat well and add ¼ teaspoon salt, ½ teaspoon baking powder (scant), and finally enough flour to make stiff batter. Drop from spoon into boiling soup. Cook until done.

Eggs

(*See Underlying Principles, page 98.*)

BOILED EGGS.

Never let eggs boil, as the part next the shell will be hard and indigestible if they do. Take a kettle that will hold 2 quarts, put in 6 eggs, fill with boiling water, cover closely and stand near the stove for 7 minutes for very soft boiled eggs, and 12 to 15 minutes if they are wanted very firm. The dish should be shaken occasionally. If the eggs have been standing in the refrigerator or in a very cold room they will not cook as quickly, of course, as eggs that have been standing in a warm room, or if less than 2 quarts of actually boiling water to 6 eggs is used. As trifling as these things seem they make a great difference in the time it takes to cook the eggs, and that is why it is so difficult to always get eggs cooked just as one wants them, unless special care is taken.

CREAMED EGGS.

6 hard-boiled eggs.
3 teaspoons of flour.
1 pint of milk.
1 heaping tablespoon of butter.
½ teaspoon salt.

Put eggs in large kettle of boiling water and let stand on table ½ hour; pour cold water over them to peel easily. Cut whites up fine and put on toast; heat the milk, rub flour and butter together, stir slowly into the milk; cook a few minutes; pour over toast; crumble yolks on top.

HARD COOKED EGGS.

Place in water that is boiling and stand where it is below the boiling point 30 or 45 minutes.

SCRAMBLED EGGS.

5 eggs.
½ cup milk.
½ teaspoon salt.
1 tablespoon butter.

Put milk in perfectly clean granite dish, having rinsed it with cold water to prevent sticking; stand on asbestos mat until it is scalding hot; add the salt and butter, then the eggs, breaking them one at a time in a saucer; draw the mat with the dish to the back of the stove; stir from the bottom of the dish as they cook, so they will be in large flakes of mingled white and yellow, delicate and soft like a baked custard; which they will not be if cooked at a high temperature. Take from the stove before they have all thickened and stir a moment longer.

POACHED EGGS.

Have a shallow pan two-thirds full of boiling salted water, ½ teaspoon salt to 1 quart of water; break each egg separately into a cup, and carefully slip into the water; it should cover the eggs. Remove the dish to the very back of the stove where the water will keep warm; put cover on dish and let stand until the white is a soft jelly; remove carefully with a cake-turner, and place on pieces of buttered toast or bread.

DEVILED EGGS.

Place the eggs carefully in a kettle of boiling water. Stand them back on the stove where they cannot possibly boil; let stand from 40 to 45 minutes. When hard plunge them in cold water so they will be less apt to discolor. Shell carefully, cut lengthwise, remove the yolks, crumble fine, add salt and pepper, a little melted butter; and if preferred some finely chopped cold boiled ham. Fill the whites with the mixture and serve cold on lettuce leaves. They are nice for picnics or school lunches. (See boiled eggs.)

CHEESE SOUFFLE.

2 tablespoonfuls of butter.
3 tablespoonfuls of flour.
½ cup scalded milk.
½ teaspoonful of salt.
A few grains cayenne.
¼ cup sharp cheese.
Yolks of 3 eggs.
Whites of 3 eggs.

Melt the butter, add flour, mix thoroughly, add gradually the scalded milk, salt, cayenne, and the cheese either grated or ground in a meat grinder, remove from fire, add yolks of eggs beaten until lemon colored. Cool the mixture, and cut and fold in the whites beaten until stiff and dry. Pour into a buttered baking dish, bake 20 minutes in a slow oven. Do not move for 15 minutes, or slam door. Must be eaten at once or it will fall.

WELSH RAREBIT.

1 tablespoonful of butter.
¼ teaspoonful of salt.
¼ teaspoonful of mustard.
1 teaspoonful of flour will keep it from stringing.
½ pound of cheese.
A dash of paprika.

Warm the butter, stir in the flour, add other ingredients, let cook until smooth; add one egg, ¼ cup milk beaten together. Cook over slow fire, stirring constantly to prevent curdling, until thick enough to serve on crackers.

WELSH RAREBIT.

2 tablespoonfuls of flour. (The flour keeps it from stringing).
2 tablespoonfuls of butter.
1 cup of milk.
½ teaspoonful of mustard.
½ teaspoonful of salt.
¼ pound of cheese, grated or put through the meat cutter.

Serve on heated crackers, or thin slices of toast; shake a little paprika over the top. A trifle of cayenne may be used in the dressing when making.

Meats

(*See Underlying Principles, pages 97, 98.*)

CHOPS OR STEAK.

To cook chops or steak perfectly they should first be scraped lightly where they have been handled, then placed on a hot broiler very close to a hot fire to sear over the outside in order to keep all the juices in; then finish cooking further from the fire until the inside is properly cooked. With a gas range, if they are cut 1 inch thick, after searing both sides near the flame, they should be lowered 6 or 7 inches below the burners and cooked 5 minutes; then turn and cook other side 5 minutes. If coal fire is used it must be burning clear and bright—free from gas. Hold the steak in wire broiler near the fire, turning every 20 seconds for 5 minutes, until seared over; then place about 6 inches above the fire and cook slowly on one side about 6 minutes; then on the other, if an inch thick. Dust with salt. Serve on a hot platter at once, either with or without a little butter spread on top.

ROAST OF BEEF, LAMB, PORK OR VEAL.

Wipe off the outside of meat with a clean cloth kept for the purpose; salt and pepper the roast on all sides; place in the pan raised on a rack skin side down; put in a very hot oven to sear over the outside, or sear over in hot skillet on top of stove; then lower the heat, pour boiling water into pan ½ inch in depth, and cook slowly 15 to 20 minutes to the pound for a rib roast of beef, or rib or breast of veal; for leg of lamb, 4½ pounds, about 2 hours in moderate oven; loin of pork, for 3 pounds, about 2 hours. Baste often. Turn and brown other side when half done. Drain off half the gravy in the pan, add 1 heaping teaspoon flour for each cup of gravy in the pan; stir until smooth; add hot water until right thickness, stirring all the time. Salt to taste.

POT ROAST OR STEWED BEEF, LAMB OR VEAL.

Wipe off the outside of a piece of shoulder clod, or chuck roast, with a clean piece of damp cheese cloth kept for wiping meats. Heat frying pan hot, salt and pepper the roast and sear it over in the pan without any fat. Then heat an iron kettle and fry out in it 2 or 3 slices of bacon or a little piece of fat, which will improve the flavor of the meat; an onion may be sliced and browned in this if preferred. Then put in the meat it will cook in its own juice; set back on stove where it will cook very slowly for 4 or 6 hours, according to size or until tender, having added water if needed. Brown a rich color. Take out the meat, pour off the grease, add a little hot water and stir in a little flour wet in cold water. About 2 heaping tablespoons of flour if there is to be a pint of gravy. Cook thoroughly for a few minutes.

Stewed Lamb or Veal is prepared in the same way.

BAKED HALIBUT WITH EGG SAUCE.

Put a layer of thin slices of salted pork in bottom of roasting pan; put the piece of fresh halibut on this, salting it slightly on the outside, put thin slices of the pork on top, add a little hot water; bake in moderate oven ¾ of an hour basting occasionally. Have white sauce ready, add a little salt and the white of a hard-cooked egg chopped fine. Put fish on platter, pour sauce over, crumble yolk of egg on top.

BOILED HAM.

Dissolve a teaspoon of borax or soda in lukewarm water; wash and scrub the ham in this until clean. Put in kettle of boiling water; add 1 teacup of sugar. When it begins to boil remove the scum and put where it will barely bubble; if it boils hard it will toughen it; cook until very tender—about 3 or 4 hours if it weighs 8 or 9

pounds. Boiled ham is very seldom cooked long enough to be as good as it might be. Set off from stove and let cool in the liquor it was boiled in; then remove the skin, dredge with fine crumbs that have been put through a sieve, or with light brown sugar, stick with cloves about an inch apart, and bake in oven until brown and crispy. If preferred without baking, put back on the stove to heat till boiling again; then remove skin and serve hot, or let cool and slice. Standing to cool in the juice seems to improve it.

BOILED DINNER.

Wash off the corned beef; put into a kettle with plenty of boiling water; let come to a boil; then set back where it will cook slowly about 3 or 4 hours, according to size. Three-quarters of an hour before serving dip out some of the broth and put in the cabbage, which has been washed and cut up into eighths, watching for worms in it, and the carrots washed and scraped; and if large cut lengthwise into quarters. Dip out more broth into another kettle, adding hot water if needed, and cook the potatoes in this by themselves about 20 or 30 minutes.

STEWED CHICKEN.

Take a couple teaspoons of soda, moisten with a little water, and rub all over the outside of the chicken after if has been drawn and singed. This cuts the grease and dirt that is always on the skin of a fowl. Rinse off thoroughly, scrubbing with a clean cloth. Cut up the chicken; wash thoroughly in cold water; put into kettle of boiling salted water; let come to a boil rapidly, then set back on stove where it will just bubble for 1½ hours if young, or 4 or 5 if old. Skim several times. The water should be cooked nearly out when the chicken is done. Lay a few slices of stale bread over the chicken and steam just a few minutes; remove the bread to a hot platter; lay pieces of chicken on top; set where it will

keep hot. Cook the broth down a little more if necessary. Mix up about 2 heaping tablespoons flour with a little cold milk; add very slowly to the broth; cook thoroughly; add a little milk, salt to taste and let come to a boil; add a tablespoon chopped parsley, and pour over chicken and bread. Serve at once, or serve on a platter with a border of boiled rice or baking powder biscuits.

FRIED SAUSAGE.

Take the sausage that comes in packages, add seasoning if desired. Make up into small flat cakes, put in frying pan, pour over hot water enough to cover, boil an hour, when the water should be boiled out. Pour off the grease, brown the sausage a rich color, take out, pour a little hot water in the frying pan, let come to a boil, pour in dish with the sausage.

PICKLED OR SALTED PORK.

Slice pickled pork ⅛ inch thick; put in spider with quart water; cook 1 hour; after the water has cooked out, flour and fry brown. Take meat out and add 1 tablespoon flour, a little salt and pepper; stir around in fat until smooth; then add either milk or water until thin enough.

CREAMED CANNED SALMON.

Make a white sauce of:

1 tablespoon butter.	2 tablespoons flour.
1 cup of milk.	¼ teaspoon salt.

Melt the butter in frying pan, stir in the flour and salt carefully, add the milk slowly, cook thoroughly a few minutes; then add one can of salmon from which all the bones and skin have been removed and the fish broken into small pieces; let come to a boil. Serve very hot.

CREAMED CHICKEN.

Cut the chicken in small even-sized pieces or cubes, make white sauce as for creamed salmon and heat chicken in it until it comes to a boil; let simmer a few minutes, and serve in hot dish or on nicely toasted bread.

MOCK FRIED CHICKEN.

Take a roasting chicken, singe, draw, wash thoroughly, rubbing a little soda over the outside, wash again, cut up as for frying. Heat a few tablespoons of snowdrift in an iron kettle, or griddle, wipe pieces of chicken dry on clean cloth, sprinkle with salt, flour well, brown a piece at a time in the hot kettle, arrange in bottom of roasting pan, add cup boiling water, cover closely, cook in moderate oven two hours. Arrange on platter, keep hot while making gravy by adding milk to water left in pan, thicken with flour moistened with cold milk. This will be much more tender and juicy than fried chicken.

CREAMED DRIED BEEF.

Pull ⅛ pound chipped beef into small pieces; melt 1 tablespoon butter in frying pan; add beef, and stir until edges begin to curl. Remove the beef, then take pan from the stove and thoroughly mix 2 tablespoons flour with the butter remaining in the pan; add very slowly 1 cup water or milk. Return to stove, stirring until it thickens, and serve in dish or on toast.

CREAMED CODFISH.

¼ pound nice codfish, or
1 cup picked-up fish, washed in cold water.
1 cup warm water.
1½ cups milk.
3 level tablespoons flour.
2 eggs.
1 tablespoon butter.

Wash the codfish thoroughly in two or three waters; add 1 cup warm water and bring to a boil; stir in slowly the flour; rubbed to a smooth paste, with part of the milk; cook thoroughly; add rest of milk; as soon as it boils remove from stove; stir in the beaten eggs and lump of butter.

SCALLOPED MEAT, FOWL OR FISH.

Take cold fish, canned salmon, or cold lamb, veal or mutton; cut in small pieces, removing bone, fat and gristle. Put thin layer of bread crumbs in bottom of baking dish, then layer of the cut meat, dash of salt; then layer of breadcrumbs, alternately, until dish is full; have crumbs on top; moisten well with hot water with butter melted in it, or part milk or gravy; bake in moderate oven until well cooked and browned on top. Or hard-boiled eggs cut up may be sprinkled through it; this improves it. For a change, make a white sauce (find on page 131), and mix the meat or fish with this first. Or the meat may be put in baking dish, and potato as prepared for potato puff be put in thick layer on top.

SCALLOPED OYSTERS.

1 quart oysters.	3 cups bread crumbs.
Milk to moisten.	Salt.
½ cup melted butter.	Pepper.

Drain the liquor from the oysters; put in dish of cold water and rinse; remove the oysters, watching for bits of shell. Put thin layer of bread crumbs in bottom of shallow baking dish, then layer of the oysters; sprinkle salt and pepper; add a little butter, then layer of crumbs, layer of oysters, salt, pepper, and butter again; then finish with layer of crumbs; moisten well with milk or half milk and half oyster juice; bake in moderate oven from ½ to ¾ of an hour, until oysters in middle of dish have sides curled and are nicely cooked.

OYSTER PIE.

1 quart oysters, washed in a dish with 3 pints of cold water; drain; pepper, salt and butter to taste; 1 quart flour, 2 tablespoons of lard, 1 teaspoon salt; mix with water for pie crust; butter plate, then line pie plate with crust, fill with oysters, seasoned; put over a crust and bake.

DELICIOUS RABBIT.

Clean a young rabbit, and cut up as for frying. Then follow recipe for mock fried chicken, and it will be even nicer than chicken.

MINCED MEAT ON TOAST.

Take cold meat, either steak, chops, or roasted meat or fowl of any kind; remove all the gristle, skin and bone; chop very fine or put through a meat-cutter; moisten with hot water, milk or gravy; add a little butter if water is used, a dash of salt; heat very hot, and serve on slices of evenly toasted bread. Spread only a thin layer on the toast so it will look dainty and appetizing.

HAMBURG STEAK.

1½ pounds of beef chopped in a meat cutter.
1 teaspoon salt.
¼ teaspoon pepper.
2 tablespoons water.

Mix well together, form into small cakes, being careful to keep them light and fluffy. Do not patdown hard. Broil, or pan-broil, them. Have a strong heat the first few minutes to sear over the outside, to keep the juices in. After both sides are seared over finish cooking at a slower heat.

BEEF LOAF.

2 pounds of ground beef.
2 eggs broken into meat without beating.
1 teaspoon salt.
¼ teaspoon pepper.
1 teacup bread crumbs.

Mix all together and form into a roll.

Put into pan and dredge with flour. Over this pour boiling water, adding a tablespoon butter and bake in the oven 1½ hours, basting often. Then remove roll, and add 1 tablespoon flour mixed with a little cold water. Cook until thickened, finally adding milk, pepper and salt to taste. Sometimes for a change add a little salt pork ground in the cutter with the beef.

SALMON LOAF.

1 pound of canned salmon.
3 eggs.
½ cup of bread crumbs.
1 tablespoonful of melted butter.
1 teaspoonful of salt.

Drain and break the salmon into flakes with a fork, removing dark skin or bone, add the egg yolks well beaten, crumbs, butter, salt, beat thoroughly, then fold and cut in the stiff beaten whites of the eggs. Bake in moderate oven about 30 minutes.

FISH BALLS.

Boil about 5 potatoes, or enough to make 1 pint when mashed. When nearly done pour off most of the water and add half box of shredded codfish, after rinsing it in cold water. When potatoes have finished cooking drain off water, shake kettle over fire, mash, and beat very light; add 2 level tablespoons of butter, 1 egg, and a little salt if needed; form into balls, dip in flour, then into egg beaten with a little water, then into bread crumbs, and fry in deep fat until light brown.

MEAT CROQUETTES.

1 quart of cold boiled meat, chopped fine (either chicken, lamb, veal or beef).
2 level teaspoons of salt.
2 tablespoons of chopped parsley.
1 saltspoon of red pepper.

Mix well together.

WHITE SAUCE.

For Croquettes, or Other Dishes.

1 pint of milk.
2 tablespoons of butter.
4 tablespoons of flour.

Rinse dish with cold water, pour in the milk and heat, rub the flour and butter to a smooth paste; add to the milk, stirring until smooth and thick; add the meat, mix well and turn out to cool. When cool form into croquettes, dip in egg, roll in bread crumbs, and fry in deep fat, heated until it will brown a bit of bread in a few minutes. Serve plain or with peas.

LAMB STEW WITH VEGETABLES.

2 necks of lamb or about 3 or 3½ pounds.
1 teaspoon salt.
4 potatoes.
1 cup tomatoes.
2 carrots.
1 onion.
1 tablespoon rice.

Trim and wipe meat with damp cloth; put over in warm water; cook slowly 1½ hours; add potatoes cut in halves, carrots cut in 8 pieces each, onion in half, tomatoes, rice and salt; cook until all the vegetables are tender.

GOOD HASH.

Remove the bones and gristle, etc., from cold meat, soup meat will do, there is nourishment in it as there is only the meat extractives that are soluble in water not the nourishing part, grind in a meat cutter, add twice as much hot freshly boiled potato (these having been washed thoroughly and boiled with the skins on, as the most valuable part is the salts next the skin), put through the meat cutter, moisten with a little milk or gravy, salt to taste, add a little butter, or sweet fresh drippings, cook several minutes, spread in a greased pie tin, and bake a golden brown, in the oven or under the flame of a gas oven. It is both delicious and nourishing.

Vegetables

(*See Underlying Principles, pages 98, 99.*)

STRING BEANS.

Wash the beans, string and cut them across in ⅛-inch pieces, drop into boiling water; boil slowly 3 hours. After they have cooked 2 hours add salt—about 1 teaspoon to a quart of beans. If they are cooked 3 hours slowly they will be very much more delicate in flavor than if cooked a shorter time. They should then be cooked nearly or quite dry; if not drain off water, add a small amount of milk, salt and butter to taste. Do not let them boil long in the milk or it will curdle. Serve hot.

MARROWFAT BEANS.

1 quart beans. ¼ pound salt pork.
1 teaspoon salt.

Look over and wash well the beans; put on stove to cook, with the piece of pork. Add salt and boil slowly several hours until tender. Cook down and serve.

BOSTON BAKED BEANS.

Look over 1 pint beans, wash and cover well with cold water; soak over night. In the morning drain, cover with fresh water, heat slowly, ¼ teaspoon of soda makes the skins more tender, keeping below boiling point for 2 hours; drain; put in bean pot with 1 tablespoon salt and 1 pound pork chops cut in 3 pieces, scattered through pot. Pour over beans about 1 cup of hot water (or enough to cover), in which is mixed 1 tablespoon of molasses. Bake slowly several hours, 8 or 10 improves them.

BOILED BEETS.

Wash carefully without breaking the skin much, so the sweetness will be retained. Drop whole in boiling water; cook slowly from 1 to 4 hours; drain; pour over cold water so the skins will slip off easily; slice, reheat, with a little butter, sugar, salt and vinegar, if liked. Serve hot.

STEWED CELERY.

Wash, scrape and cut the outer stalks of celery in ½-inch pieces; drop in boiling salted water; cook slowly about 45 minutes, or until tender; drain thoroughly; add a very little milk, butter and salt; let come to a boil. Serve hot.

CREAMED CABBAGE.

Have a large kettle half full of boiling water; add 1 teaspoon salt for each quart of water. When it begins to boil again drop in the cabbage, which has been washed and shaved, and as soon as it comes to a boil, push to the back of the stove, where it will simmer slowly for 30 minutes. Take out and drain carefully. Melt 1 tablespoon of butter in the kettle; add 1 tablespoon flour; stir until smooth and cooked; add ½ pint milk; stir until it has boiled 2 minutes; add ½ teaspoon salt; let cabbage simmer in this a minute.

HOT SLAW.

2 quarts shaved cabbage.
3 quarts boiling water.
4 teaspoons salt.
1 cup vinegar.
6 tablespoons sugar.

Add salt to the boiling water and drop in cabbage. Boil slowly 20 minutes or until tender, then drain carefully; add vinegar and sugar and toss around lightly until thoroughly mixed.

CREAMED CAULIFLOWER.

Remove the leaves and stalk. Four or five pieces of the leaves may be left on for a garnish if preferred. Soak in cold salted water, head down, for ½ hour to draw out all the insects that may have found their way in. Cook slowly (uncovered) in boiling salted water for 1 hour. Place in serving dish with head up; pour over white sauce. (See page 131.)

BAKED CAULIFLOWER.

Boil as above; break the flowerlets apart and put in baking dish in layers, with a grating of cheese, dash of red pepper, and cream sauce between; sprinkle bread crumbs on top.

CREAMED CARROTS.

Wash and scrape the carrots; slice very thin; drop in enough boiling salted water to cover; cook until very tender, when the water should be boiled nearly out. Drain; add a little milk, butter and salt to taste; cook a few minutes longer and serve hot.

BOILED SPINACH.

Take ¼ or ½ peck of spinach, remove roots, look over carefully; wash in several pans of water to make sure there is no grit left on it. Put over to boil in a little water, allowing 1 teaspoon salt to a quart of water. Cook slowly in uncovered kettle from 20 to 30 minutes, until tender; drain thoroughly; replace on stove to dry all the water out; cut through several times with a knife and fork; season to taste with butter and salt. Garnish with hard-boiled eggs. Some prefer spinach cooked in its own juice, put through a colander and moistened with cream.

KALE.

Look over and wash ¼ peck of long-leaved kale, breaking out the stalk through the center; put into 1½ quarts boiling water with 2 teaspoons salt; boil from 45 minutes to 1 hour. Drain, pressing the water all out. Add 1 small tablespoon of butter, a little more salt and a little vinegar.

WATERCRESS GREENS.

Look over the greens carefully; wash thoroughly; put them over in boiling salted water; cook 1 hour or until tender. Then remove from kettle and press all the water out; add a little butter and more salt if needed. Serve very hot. They are much more digestible this way than cooked with meat.

BOILED ONIONS.

Take the skins off the onions, holding them under water to prevent smarting the eyes. Put in a saucepan, cover with boiling water; add 1 teaspoon salt to a quart of water and 1 teaspoon sugar; boil very slowly until tender—about ¾ of an hour if medium size. Drain thoroughly; add a little butter and let come to a boil.

DELICIOUS BAKED ONIONS.

Peel and slice the onions, add a bit of soda, simmer until tender in just enough boiling salted water to cover, when tender, drain; mix with white sauce (see page 131), put in baking dish, sprinkle with sifted bread crumbs; brown in the oven. In preparing a quart and a half of onions use about 1½ cups of milk for the white sauce, have it rather thick.

BOILED POTATOES—MASHED POTATOES.

Wash potatoes thoroughly with vegetable brush; peel very thin; drop in boiling salted water—about 1 teaspoon salt to each quart of water. Cook 25 minutes, or until tender. Drain off all the water; shake the kettle

over the fire until they look white and mealy. If they are to be served whole, send to the table at once in an uncovered dish. If obliged to stand, place kettle on back of stove with a piece of clean cheese cloth folded over them. This will absorb the steam and help to keep them from becoming soggy. If to be mashed, mash thoroughly; add a little heated milk and a level tablespoon of butter; stir and beat with a spoon until they are light and creamy. Heap loosely in a deep uncovered dish and send to the table very hot.

BAKED POTATOES.

Take medium size potatoes; scrub clean; put in clean dripping pan; bake in hot oven 45 minutes, or until soft. Before they are quite done cover with a cloth and strike with the palm of the hand to break the skin and let the steam escape so they will be mealy. They will not be good if baked in a slow oven.

STUFFED POTATOES.

Prepare as for baked potatoes; when done cut in halves lengthwise, scoop out of the skins, mash thoroughly; and for six potatoes add 1 level tablespoon of butter, about 3 tablespoons of milk, 1 teaspoon of salt; beat vigorously; heap lightly into about six of the half shells, and brown a light golden brown in the oven. In the gas oven it will take about 10 minutes if placed under the flame of the broiler, but in the upper part of the oven or in a coal stove oven it will take about 20 minutes.

SCALLOPED POTATOES.

Wash and pare the potatoes; slice them very thin; put in a baking dish in layers, seasoning each layer with salt and butter; add enough milk to cover, and bake in a moderate oven until tender.

DELICIOUS POTATOES.

Wash and pare potatoes; put in boiling salted water; cook until they will pierce with a silver fork; drain off water; put on stove; shake gently; let stand until so dry they will almost stick to the kettle; have a little butter melted in dish, roll potatoes in this; place in oven, or under flame in gas oven, until a golden brown. Serve at once.

SARATOGA POTATOES.

Wash and pare 2 or 3 fine, large potatoes; slice very thin on a vegetable slicer; wipe dry; fry in hot deep fat. Snowdrift is best. It should be hot enough to brown nicely, but not hot enough to brown too quickly. Put in only a few pieces at once and keep them separated while cooking with a wire egg beater. Take out when a delicate yellow, tinged with brown; place on a tin to drain. Sprinkle with salt and stand on paper to absorb the grease. They may be prepared earlier in the day and heated in the oven before serving.

FRENCH FRIED POTATOES.

Wash and pare small potatoes; cut in eighths lengthwise; dry on a clean cloth; fry in deep fat—snowdrift is best; drain on brown paper and sprinkle with salt. If the fat is too hot they will not be cooked well on the inside when they are brown enough on the outside.

POTATO PUFF.

Two cups mashed potatoes; stir into it 2 tablespoons melted butter; beat to a white cream; add 2 eggs beaten very light; 1 teacup cream or milk; salt to taste. Bake in a deep dish in a quick oven until nicely browned.

HASHED BROWN POTATOES.

4 hot boiled potatoes. 1 slice bacon.
½ teaspoon salt. Dash of pepper.

Peel and boil the potatoes; drain; chop very fine; have bacon tried out in frying pan; remove bacon, put in potatoes, pat down closely and brown carefully. Fold like omelet and serve hot on heated platter.

SWEET POTATOES BAKED WITH APPLES.

4 large sweet potatoes or six medium size ones.
The same number of apples.
1 cup sugar.
½ cup butter.
1 cup of hot water.

Scrub potatoes clean; boil until tender; slice, after having peeled them, in slices ¼ of an inch thick; pare the apples; slice them in same way; put in baking dish in alternate layers; sprinkle sugar on top and scatter the butter over the top; pour over the water; bake 1 hour slowly. Serve hot, as a vegetable.

BOILED TURNIPS.

Wash and pare the turnips; drop in boiling salted water; add 1 teaspoon sugar. Boil about ¾ of an hour or until tender. Drain dry and place on stove 5 minutes —until they are dry; mash thoroughly; then cook dry on stove again; add butter and salt to taste; moisten with milk. Serve very hot.

TURNIP CUPS.

Select small turnips of uniform size. Pare, scoop out a little of the center and boil until tender—in boiling salted water. Have ready some white sauce in which heat some peas—either fresh, canned or the green split peas—carefully cooked. When hot fill the turnip cups, sprinkle with parsley. Serve hot.

SCALLOPED TOMATOES.

Open can of tomatoes; pour out at once; drain some of the juice off; season with salt and a very little pepper and sugar; put in a buttered baking dish in alternate layers with bread crumbs, having layer of crumbs on top. Dot with pieces of butter. Bake in a moderate oven ¾ of an hour.

Salads

FRENCH SALAD DRESSING.

½ teaspoon salt.
¼ teaspoon pepper.
2 tablespoons vinegar or lemon juice.
4 tablespoons olive oil.

Mix salt, pepper and oil; add vinegar slowly; beat thoroughly.

COOKED SALAD DRESSING.

2 teaspoons flour.
1 egg.
½ teaspoon (scant) salt.
1 tablespoon sugar.
1 tablespoon melted butter.
6 tablespoons vinegar and 4 of water.
¼ teaspoon mustard.

Mix all together with the beaten egg and cook over hot water until right consistency.

CAULIFLOWER SALAD.

Remove the leaves and stalk; stand in salted water an hour, head down, to draw out any insects; drop in boiling salted water—teaspoon to each quart. Cook an hour or until very tender. Set away to cool; break into small flowerlets; pour over French dressing; toss it over to get well seasoned. Serve on lettuce leaves.

CABBAGE SALAD—Chopped.

1 quart chopped cabbage.
2 teaspoons salt.
¼ teaspoon pepper.
2 tablespoons sugar.
½ cup vinegar.

Mix all together, then pour on vinegar.

CABBAGE SALAD.

Shave part of a firm head of cabbage very fine, not thicker than the blade of a silver knife, let stand in very cold water half an hour or more, drain thoroughly just before serving, and add French dressing. It is very nice with a little bit of onion shaved very thin and sprinkled through it.

CHICKEN OR VEAL SALAD.

Cut the meat into small pieces after removing gristle and bone. Add ½ as much celery that has been washed, scraped and cut into small pieces. Moisten with Mayonnaise dressing or salad dressing made of:

1 egg.
2 teaspoons flour.
½ teaspoon mustard.
½ teaspoon (scant) salt.
1 tablespoon of melted butter.
6 tablespoons vinegar and 4 of water.
1 tablespoon sugar.

Mix all together with the beaten egg and cook over hot water until right consistency. Let cool before using. Most chicken salad is made of part veal. Soup meat makes a good salad, or for croquettes. There is much nourishment left in it and it should not be wasted.

LETTUCE SALAD.

If the lettuce is not very crisp and tender, let stand in cold water several hours. Look over carefully, watching for insects; wash thoroughly. Then with a pair of clean scissors cut up into shreds about 1/16 of an inch wide, cutting across the leaves. Add French dressing of oil and vinegar and strew a few capers over it. Where the lettuce is very tender serve without shredding, but if a little tough, shredding will improve it very much; but it must be used soon after preparing.

LETTUCE SALAD.

Wash the lettuce thoroughly after looking over carefully; serve very cold with French dressing. A tiny bit of finely shaved onion scattered through it makes a pleasant change, or a few capers. Make Philadelphia cheese into balls, dust them with paprika, and serve on the lettuce.

POTATO SALAD.

Wash and scrub the potatoes with vegetable brush, put over to cook in boiling salted water. When tender drain, pare, cut in thin slices, grate a little onion juice over them, add a cooked salad dressing; toss lightly until mixed; pour a little of the dressing over the top. Some omit the salad dressing and have a few pieces of bacon fried, crumbled up and mixed with the potato; pour a little vinegar in the skillet with the fat and pour over the salad. This gives it a slightly smoky taste.

SALMON SALAD.

Remove salmon from can, take out all the bones, skin and fatty pieces; separate into pieces of uniform size; arrange on lettuce leaves with slices of lemon.

MIXED VEGETABLE SALAD.

Most kinds of cold cooked vegetables that have not had milk dressing on them can be utilized for vegetable salad—cold string beans, salsify, asparagus, etc. Served with any kind of salad dressing over them after they have been cut into suitable sized pieces.

TOMATO JELLY SALAD.

One can of tomatoes.
1 bay leaf.
1 teaspoonful of brown sugar.
A pinch of allspice.
½ chopped onion.
½ teaspoonful of salt.
A dash of cayenne pepper.
1 pinch of ground nutmeg.

Put all in stew pan and simmer slowly. If it becomes too thick, add a little water, strain through a fine sieve. To each pint add 1 tablespoonful of gelatine dissolved in half a cup of hot water. It may be molded in punch cups, or a dish, and cut up into cubes, or just heaped roughly on lettuce leaves, with a portion of mayonnaise dressing. Can be garnished with stuffed olives or capers.

MAYONNAISE DRESSING.

Yolk of one egg.
1 cup of oil (either olive or peanut).
½ teaspoonful of salt.
½ teaspoonful of mustard if preferred.
2 teaspoonfuls of lemon juice or vinegar.
A dash of red pepper.

Put the dish for making in the refrigerator, the egg and the oil next the ice as they must be cold to work successfully. Then beat the yolk of the egg with a silver or wooden fork, add the oil drop by drop, beating all the time. If it gets too thick, a little lemon juice or vinegar, not more than two teaspoonfuls in all, may be added. Do not add the salt until it is finished, as it causes it to separate, then stir in. It is a great help in making mayonnaise, to use an oil dropper that comes especially for the purpose. Hook it over a pail on the outside, and stand on the edge of a table, and sit down, letting it drop into the dish. If it should separate in making, beat it with a Dover egg beater.

Desserts

(*See Underlying Principles, pages 89, 90.*)

BOILED RICE.

1 teacup rice—washed in 3 waters.
3 pints boiling water.
½ teaspoon salt.

Cook slowly on asbestos mat—¾ of an hour, or until all the water is boiled out. Add 1 cup milk, piece of butter size of walnut. Stir carefully to prevent breaking rice. Pour into dish, and over the top sprinkle brown sugar and nutmeg, or omit sugar and nutmeg and serve with

HARD SAUCE.

½ cup butter.
2 tablespoons of boiling water.

Stir together until creamy and add 1 cup granulated sugar; flavor with nutmeg.

RICE PUDDING—Without Eggs.

4 cups milk.
1/3 cup rice.
½ teaspoon salt.
1/3 cup sugar.
Nutmeg to taste.

Wash rice, mix ingredients and pour into buttered pudding dish; bake 3 hours in very slow oven stirring 3 times during first hour of baking to prevent rice from settling.

BREAD PUDDING No. 1.

2 slices bread.
2 cups milk.
2 eggs.
2½ tablespoons sugar.
½ teaspoon salt.
Dash nutmeg.

Break bread in small pieces and pour over it the milk. Mix eggs and sugar together and beat into bread and milk. Add flavoring; pour into baking dish and dot with butter. Put baking dish into larger pan partly filled with water. With paper between the two pans bake 30 minutes.

LEMON RICE PUDDING.

1 level cup of cold boiled rice (salted).
1 pint of milk.
½ tablespoonful of butter.
1 saltspoonful of salt.
2 eggs.
1 lemon.
2 tablespoonfuls granulated sugar.
2 tablespoonfuls pulverized sugar.

Warm the milk, add the rice, butter, grated rind of lemon (having washed and wiped it first), the granulated sugar, and salt. Stir thoroughly; when not too hot stir in the beaten yolks of eggs. Beat whites to stiff froth with the powdered sugar, add the lemon juice, pour pudding into buttered baking dish, spread the whites of eggs on top and bake in a slow oven 30 minutes.

BREAD PUDDING No. 2.

Make custard as for baked custard, pour in a baking dish; take slices of bread ¼-inch thick—stale bread will do—butter on one side and fit entirely over top of custard, with butter side up. Stand baking dish in another dish filled with hot water and bake in moderate oven until custard is firm and the bread nicely browned.

STEAMED GRAHAM PUDDING.

½ cup buttermilk.
1 cup molasses.
1 cup graham flour.
½ cup white flour.
½ heaping teaspoon saleratus (soda).
½ heaping teaspoon cinnamon.
½ heaping teaspoon of cloves.

Sift dry ingredients together and add milk and molasses; steam 2 hours in 1 pound baking powder cans filled half full, and set in kettle of boiling water; boil steadily 2 hours without taking covers from cans, or if sweet milk is used ½ cup New Orleans molasses, 1 cup sweet milk, 1½ cups graham flour, spices and soda as above. Adding the milk and molasses, to soda, flour and spices sifted together. Steam as above. Serve hot with sauce.

SAUCE.

1 cup brown sugar.
½ cup butter—cream together.
1 good teaspoon corn starch or 2 flour.
1 pint boiling water.

Flavor with nutmeg; cook until clear or sufficiently thick.

JUNKET.

1 quart fresh milk.
4 tablespoons sugar.
¼ teaspoon salt.
1 tablespoon vanilla.
1 junket tablet.

Dissolve the tablet in one tablespoon cold water. While it is getting soft heat the milk luke-warm—neither hot nor cold—stirring in the sugar and salt. Remove from the fire and pour in the dissolved tablet, give one stir and pour quickly into small junket glasses. Do not jar or move it for 10 minutes. When it hardens set away to cool. Sometimes put tiny cubes of preserved ginger on top.

COFFEE JUNKET.

Coffee junket is delicious made as above; only use thin cream instead of milk and flavor with about four tablespoons of very strong coffee. Serve very cold.

CARAMEL JUNKET.

2 cups of milk.
1/3 cup of sugar.
1/3 cup of boiling water.
1 junket tablet.
1 pinch of salt.
1 teaspoonful of vanilla.
Nut meats ground in meat grinder.
Whipped cream, flavored and sweetened.

Heat milk until luke warm. Put sugar in stew pan over fire and stir until light brown, add the boiling water slowly, cook until reduced to 1/3 cup. Cool and add milk slowly to syrup. Pulverize junket tablet in cup, with wooden-handled knife, add to mixture with salt and

vanilla. Turn in small cups to set. Leave in warm room until it has set, being careful not to jar for a little while. When set, put in refrigerator to chill. Turn out on individual plates, cover with whipped cream, and sprinkle with chopped nuts.

BAKED CUSTARD.

3 cups milk.
2 eggs.
6 tablespoons sugar.
A little nutmeg.

Beat the eggs lightly add the sugar, salt and nutmeg; pour into the milk; see that the sugar is dissolved; pour into baking dish or into small custard cups; set in a pan of hot water; bake in a very slow oven.

BOILED CUSTARD.

Same materials as for cup custard, only the milk is heated in a dish set in hot water on top of stove, and the beaten eggs, sugar and nutmeg, with dash of salt, have the hot milk poured slowly over them, stirring all the time. Pour back in dish over hot water and cook slowly, stirring all the time, until it thickens and coats the spoon; remove from fire at once, as it will curdle if cooked too long.

BAKED CHOCOLATE CUSTARD.

1 pint of milk.
½ cup sugar.
¼ cup grated chocolate.
2 eggs.
¼ teaspoon salt.
2 tablespoons boiling water.

While milk is heating in double boiler, or on asbestos mat, mix chocolate and sugar together, add the boiling water and stir over the fire until it looks smooth and glossy; remove from fire and beat in gradually the hot milk. Add salt, pour over the eggs, well beaten, stirring all the time. Pour in a baking dish, and put into pan of hot water in a moderate slow oven. Bake until firm in center, about thirty minutes.

TAPIOCA FLOAT.

1 quart milk heated on asbestos mat.
2 eggs.
¾ teaspoon salt.
¼ cup of tapioca, soaked over night, or if it is pearl tapioca 1 hour.
½ cup sugar.
1½ teaspoons vanilla, or flavor to taste with nutmeg.

Stir the tapioca after soaking into the hot milk; let cook until the tapioca is clear, then add gradually the beaten yolks and sugar mixed together, and the salt. Remove at once from the fire, so it will not curdle, and stir the whites in, having first beaten them stiff. The heat of the custard will cook them enough. Stir in the flavoring and put aside to cool. If nutmeg is used it is to be added to the beaten eggs.

COTTAGE PUDDING.

1¼ cups sugar.
½ cup snowdrift, very small measure.
1 egg.
¾ cup water.
2 cups flour.
1 heaping teaspoon baking powder.

Cream the snowdrift and sugar, add the egg, without beating; beat until creamy, add water slowly, sift in the flour and baking powder, having sifted them together. Bake in 1 or 2 layers—in hot oven—until it shrinks from the pan. Serve hot with sauce made of 1 pint hot water thickened with 3 tablespoons flour wet up with little water; cook thoroughly, add ½ cup sugar, tablespoon butter, little salt, nutmeg to taste.

WOODFORD PUDDING.

3 eggs.
1 cup of sugar.
½ cup butter.
1 tablespoon sweet milk.
½ cup flour.
1 cup jam or preserves.
Cinnamon and nutmeg to taste.
2 teaspoons baking powder.

Mix butter, sugar and eggs together, beat thoroughly, add milk and jam, and baking powder mixed with flour.

Bake slowly in a pudding dish about 30 minutes. Serve with cream or sauce.

CREAM OF WHEAT MOULDS.

1 quart boiling water. 1 teaspoon salt.

½ cup cream of wheat, or ¾ cup if the pudding is to be eaten hot. Have the water rapidly boiling, add salt and drop in cream of wheat slowly, so it will not stop boiling. Then it will not lump. Stand dish on asbestos mat and cook slowly ¾ of an hour. Pour out in a dish rinsed with cold water and let stand several hours to harden. Then loosen with a knife around the edges and slip it down one side to let the air under. Then it can be easily turned out. Serve with milk, sugar and a dash of nutmeg for dessert.

STRAWBERRY SHORTCAKE.

1 pint sifted flour.
About ¾ cup milk, or enough to make a stiff dough.
2 level teaspoons baking powder.
2 tablespoons snowdrift or lard.
½ teaspoon salt.

Sift flour, baking powder and salt together twice, rub the shortening into this between the thumb and fingers until it is in small flakes. Add milk gradually, mixing and cutting through with a knife till the whole is a spongy mass. Turn on a well-floured board, divided in two equal parts; pat each out into a flat cake to fit a pie pan; put one in the greased pan, butter the dough well with melted butter and put the other one on top; let stand 10 minutes; bake in hot oven until thoroughly done. Then they will separate easily; butter and spread with crushed strawberries mixed with sugar to taste; pile one on top of the other and cover in like manner. It will take from 1 to 1½ quarts of berries. Serve hot.

ORANGE JELLY.

½ box gelatine, or
2 tablespoons granulated gelatine.
½ cup cold water.
1 cup sugar.
1½ cups orange juice.
3 tablespoons lemon juice.
1½ cups boiling water.

Soak gelatine in cold water 20 minutes, unless it is the granulated, when it may be moistened 2 minutes, dissolve in boiling water, strain, add to sugar, orange and lemon juice. Turn into moulds and chill.

LEMON JELLY.

Omit the orange juice from above receipt, use only ½ cup of boiling water and ½ cup lemon juice. Prepare the same way.

COFFEE JELLY.

½ box gelatine—
soaked in
½ cup cold water for 2 minutes.

Two cups of strong coffee made by pouring 2 cups of boiling water on 3 heaping teaspoons of pulverized coffee; let stand 3 minutes without boiling. Pour 1 cup boiling water on softened gelatine and add the strained coffee and 1 cup of sugar, 1 saltspoon salt. Stir well and pour into a mold. When cold and firm serve with milk poured from the top of a bottle of milk, or thin boiled custard.

CARROT PLUM PUDDING.

Wash and boil
1 quart of carrots and add to them
¼ cup of sugar.
¼ pound of suet chopped fine.
1 cup of flour.
¾ pound seeded raisins.
¼ pound of citron.
½ teaspoonful of salt and cinnamon.
A little nutmeg and clove.

Flour the fruit, mix all well, and cook for 3 hours in a double boiler. This will keep for weeks, and may be warmed in double boiler before using. *Very good.*

TO FREEZE CREAMS AND ICES.

Crack off the ice in large pieces with an ice pick, put in burlap bag, strike with the side of an ax or mallet until about the size of a hickory nut or less; put the can in the outside of freezer; see that it is altogether so it turns properly, then put in 1 measure of salt to each 3 of ice. If the freezer is nearly full (there should always be room left for it to expand in freezing), have the ice come up well on top; but if there is only a little in the can, have the ice and salt come a little higher up than the cream. Turn the crank slowly until it begins to thicken; then a little more rapidly. Do not draw off the salt water until the cream is frozen, unless there is danger of its getting in the can. The salt makes the ice melt, and the ice in melting draws all the warmth out of the cream or custard until it becomes so cold that it freezes. When frozen, remove the dasher, being careful not to get any salt in the can, scrape the ice cream from the sides of the can and pack down with a spoon; put on top, fit a cork in the opening, draw off the water, add more salt and ice, this time using 1 part salt to 4 of ice, put newspapers or thick carpet on top, let stand a few hours if possible. When ready to serve lift out the can, stand in cool water 1 minute, or, if it will not slip out of can then, wring a cloth out of hot water and pass around the can and it will slip out.

COFFEE MOUSSE.

Make syrup with ½ cup sugar and 1 cup strong coffee, pour this while hot over two beaten egg yolks, beating it in. Cool and mix with one pint thick cream beaten stiff. Fill mold and pack in equal parts cracked ice and salt, let stand three or four hours after turning the freezer a few minutes and removing dasher.

MILK SHERBET.

4 cups milk. 1½ cups sugar.
Juice of 3 lemons.

Dissolve the sugar in the juice; add milk slowly, stirring constantly to prevent curdling. If the milk is ice cold it will not curdle. Freeze and serve.

VANILLA ICE CREAM.

1 pint milk. ¼ cup flour.
1 pint thin cream. 2 eggs.
1 saltspoon salt.

Scald the milk, saving enough out to mix the flour to a smooth paste; add slowly to the milk; cook in a double boiler or on an asbestos mat until very thoroughly cooked, and there is no raw taste to it; remove from stove and add the beaten eggs; stir well, add sugar and salt; strain. When cool add the cream and flavor to taste with vanilla, remembering it needs to be a little too strong as some of it freezes out. A level tablespoon of butter melted in the custard makes it much nicer, and a half pint of double cream makes it extra nice. If this is added a little more sugar will be needed. Freeze as above.

CHOCOLATE SAUCE.

½ cup of sugar. 1 stick of cinnamon.
1 cup of water. 2 squares of chocolate.
1 tablespoonful of cornstarch.

Mix sugar and cornstarch together, add to boiling water, cook thoroughly with the cinnamon stick, remove it, and add chocolate, which has been softened in cup set in warm, not hot, water.

Cake

(*See Underlying Principles, pages 89, 90.*)

LAYER CAKE.

1¼ cups sugar.
½ cup butter or a little less of snowdrift.
2 eggs.
¾ cup of water.
2½ cups of flour.
1 heaping teaspoon baking powder.
1 teaspoon vanilla.

Cream butter and sugar, add the eggs without beating, then beat hard, add the water very slowly, the vanilla, and sift in the flour and baking powder. Bake in three layers in well-greased pans in piping hot oven about 7 minutes each. Test with a broom splint, and if it does not stick to it at all cake is done. It will begin to shrink from sides of pan when baked enough, and if pressed lightly on top with the finger will not remain dented. Remove from tins to a cake cooler or wire rack, and put together with any kind of filling preferred.

LEMON FILLING.

1 pound confectioners' sugar.
¼ cup boiling water.
Grated rind of 1 lemon.

Moisten the sugar with the water, grate into this the yellow rind of a lemon, being careful not to get any of the white from the rind. Beat to a smooth paste and put between the layers.

FIG FILLING.

½ pound figs chopped fine.
1/3 cup sugar.
1/3 cup boiling water.

Mix all together; cook in a double boiler until thick enough to spread.

CHOCOLATE FILLING.

2½ squares chocolate.
1 cup powdered sugar.
3 tablespoons milk.
Yolk of 1 egg.
½ teaspoon vanilla.

Melt chocolate over hot water, add ½ of the sugar and the milk; mix rest of sugar and egg together; cook in double boiler until it thickens; stir for several minutes so it will be smooth. Cool slightly, flavor and spread. Brown sugar may be used instead of powdered.

CARAMEL FILLING.

1¾ cups light brown sugar.
½ cup milk.
Butter size of hickory nut.
Vanilla to taste.

Heat sugar, milk and butter; stir constantly over hot water until a drop on a cold plate will not stick to the fingers; add vanilla. Let stand in hot water while spreading.

ANGEL CAKE.

Whites of 6 eggs.
½ teaspoon cream tartar.
¾ cup of powdered sugar.
½ cup flour.

Beat whites of eggs stiff, add cream tartar and beat dry, about 20 minutes in all; sift in slowly the sugar, folding it in, add about ¼ teaspoon vanilla, sift the flour in very slowly, and cut it in; do not stir it. Bake in an ungreased pan, made with a tube in the center, ¾ of an hour in a very slow oven.

INEXPENSIVE SPONGE CAKE.

Yolks of 3 eggs.
1 cup sugar.
1 tablespoon hot water.
1 cup of flour.
1½ teaspoons baking powder.
¼ teaspoon salt.
Whites of 3 eggs.
2 teaspoons vinegar.

Beat yolks of eggs until thick and lemon-colored, add sugar slowly, beat well; then add water, flour sifted with

baking powder, then whites of eggs beaten stiff, with the salt in them; these should be cut in carefully with as little stirring as possible to prevent the air in the beaten eggs from escaping; add the vinegar. Butter and flour the baking pan. Bake in a moderate oven 35 minutes.

GINGER BREAD.

¼ cup snowdrift and ¼ cup sugar creamed together; break in egg and beat together. 1 egg, ½ cup water slightly warm and ½ cup molasses, stirred together, add to above mixture. 1½ cups flour, ½ teaspoon soda and 1 teaspoon ginger sift together and add slowly. Bake 30 minutes in very slow oven.

MOLASSES COOKIES.

1 cup molasses.
½ cup butter.
½ cup sugar.
1 teaspoon soda.
1 tablespoon ginger.
A little salt.
¼ cup water.
About 4 cups flour.

Scald the molasses, take from stove, add the butter, sugar, ginger and salt; when cool add the water; sift the soda in about 3 cups of the flour; add to the above mixture, using the other cup of flour, or more if needed. Roll out a portion at a time on a floured board till about one-eighth of an inch in thickness; bake in a moderate oven or they will burn, as they are made with molasses.

Note.—By using a little less flour the batter may be dropped from a spoon on to the buttered pan. This saves much trouble and time and they are equally nice.

SUGAR COOKIES.

½ cup butter.
1 cup sugar.
1 egg.
½ cup milk or water.
2 cups flour.
2 teaspoons baking powder.

Warm the mixing bowl slightly, put in the butter and cream it, add the sugar slowly, then the egg without beating; beat all vigorously together; sift the flour and baking

powder together; add this and the milk or water alternately to the first mixture. Divide the dough and flavor half with vanilla (about 2 teaspoons) or lemon, and the other half with an ounce of melted chocolate or a couple tablespoons of cocoa sifted with a little flour. Add enough more flour to make a soft dough, about two-thirds of a cup or more according to the flour. Flour the bread board, roll out a portion of the dough about an eighth of an inch thick and cut out with a cooky cutter or a tumbler. Bake in a hot oven, watching to avoid burning them. (See note on preceding page.)

OLD FASHIONED DOUGHNUTS.

1 cup sugar.
2 teaspoons butter.
2 eggs beaten without separating.
1 cup milk.
½ grated nutmeg.
A pinch of salt.
3 cups of flour.
3 teaspoons baking powder.

Cream butter and sugar, add nutmeg, salt, eggs and milk, and the flour with the baking powder sifted with it twice; dredge the board, roll out, cut in strips, twist together, or cut in rings with a cutter; fry in deep snowdrift. If the fat will brown a bit of bread in 1 minute it is the right heat. The dough should be as soft as can be handled. See that they are cooked all the way through. Drain carefully and lay on coarse paper to absorb the grease. Roll in powdered sugar when cold if preferred.

As each doughnut is taken from the hot fat, if it is plunged for an instant in hot water, it will remove some of the grease and make them more digestible.

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